Oct. 20, 1986

Chemical Marketing Reporter

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CMR MARKET INDEX

CHEMICAL MARKETING REPORTER's market index of chemicals and related materials (100=1974 average), based on 97 key commercial chemicals, appears alongside with data for two weeks ago, last month and last year.

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Sept. 19, 1986	151.25
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Drug Export Action Pressed

Pharmaceutical Manufacturers Association is urging the White House to accept an omnibus drug and health authorization package that contains pharmaceutical exports legislation.

The bill, passed by both the House and the Senate in the final hours of the 99th Congress, would permit the export from the US of prescription drugs which have not been approved for marketing within the US by Food & Drug Administration.

"We strongly support the export provisions of the bill and urge the President to sign it," says PMA president Gerald Mossinghoff.

"This legislation, if signed into law, would strengthen the ability of US firms to compete in world markets and provide jobs here that otherwise would be created abroad, since only the US presently prohibits such exports."

The package, however, faces an uncertain future at the White House because it also includes a provision to create a Federal "no fault" compensation system for victims of childhood vaccines.

The Reagan Administration has endorsed the drug export bill, but strongly opposes the vaccine injury compensation legislation.

Rep. Henry Waxman (D.-Calif.) the chief sponsor fo of the vaccine bill, said a growing number of parents are taking on the heavy financial burden of suing vaccine manufacturers on behalf of their injured children.

Many states do not allow children to win lawsuits

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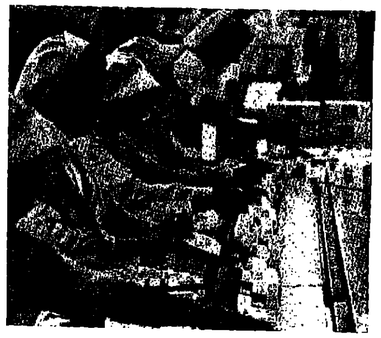

DRUG FINISHING IN ARGENTINA: US pharmaceutical makers maintain that under current law they must either build plants abroad or license to foreign producers.

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OCTOBER 27, 1986

Montedison Drops Pursuit Of Swedish Biotech Firm

Montedison SpA's efforts to acquire Fermenta AB, the Swedish biotechnology firm, came to an abrupt end last week, with the Italian chemical giant blaming Fermenta's founder and chief executive for the failure.

Montedison said it broke off talks with Fermenta in part because of agreements reached by Refaat El-Sayed, the Fermenta founder, to sell key company assets in the US to other parties, including Monsanto Company.

Earlier this month, Fermenta reached agreements in principle to sell its Fermenta Plant Protection subsidiary to Monsanto, and two other US subsidiaries to an undisclosed buyer.

Giorgio Porta, managing director of industrial policy at Montedison, called the agreements a "surprising thing," complaining that Montedison had not been informed about the sale of the subsidiaries, which Montedison had planned to integrate with its own operations.

Montedison also complained last week that Fermenta refused to provide financial information necessary to carry out the acquisition.

Fermenta countered that Montedison was seeking confidential information which would be illegal to disclose under Swedish law, but Montedison claimed that a Swedish "expert" in such matters assured Montedison of the legality of the request. A Montedison spokesman in Milan was unable last week to identify the expert.

Under a preliminary agreement reached in July, Montedison was to purchase Mr. El-Sayed's 76.5 percent voting control of the company, for $340 million.

Fermenta's unions, however, expressed concern about a Montedison takeover, so Montedison agreed in concept to a plan under which it would initially acquire only part of Mr. El-Sayed's holding in Fermenta. After a transition period, during which Mr. El-Sayed would remain as chief executive, Montedison would acquire the remaining shares.

Mr. El-Sayed subsequently sold half of his 6 million A shares in Fermenta to three separate Swedish institutions. Two were prepared to sell back their Fermenta shares, but a third — Procordia AB — reportedly acquired the shares for strategic purposes. Procordia is also said to hold an option to acquire an additional 3 million A shares.

Montedison chairman Mario Schimberni told a Montedison shareholders' meeting early last month that the company would pursue an "alternative" acquisition if an agreement were not reached by November 30 assuring Montedison eventual control of Fermenta.

The Montedison chairman said at the time that the company had an "equivalent" acquisition on standby, but last week, the company said only that it was holding talks with US and European firms about "possible acquisitions and joint ventures" in the biotechnology area.

Superfund Bill Reaction: Relief Found in Most Quarters

Lawmakers, the chemical industry and environmental groups expressed mostly relief last week as they hailed the signing of the superfund reauthorization bill (CMR 10/20/86, pg. 3) saying it is a historic step toward a safer, healthier environment.

"This is the most significant piece of environmental legislation this decade," said Sen. Frank Lautenberg (D-N.J.). "It's a great day for New Jersey and other states striving to clean up toxic waste sites."

"The path to enactment has been long and sometimes difficult, but it's extremely gratifying to have achieved such a significant result," Rep. John Dingell (D-Mich.), added. "I will be watching closely to see that the Reagan Administration utilizes its new powers and gets on with the desperately needed cleanup of hazardous waste."

The legislation, which will provide $8 billion for the cleanup of toxic waste dumps and leaking underground storage tanks, includes landmark provisions concerning community right-to-know, community response to environmental emergencies and tough standards and schedules for cleanup.

Officials in the Treasury and Energy Departments had urged President Reagan to veto the bill because of the measure's new broad-based corporate tax and its high levy on the petroleum industry.

But in light of the legislation's overwhelming support in Congress, the President chose to heed the advice of Environmental Protection Agency Administrator Lee M. Thomas, who had warned that a veto would end the cleanup program and throw his agency into chaos.

"The bill's financing has some real concerns," said President Reagan, "but the health and safety of Americans is among the highest priorities of government, so we will not allow an interruption in the cleanup process."

He said he was assured by Mr. Thomas that EPA will spend only what is necessary to accomplish the objectives of the program, and by Senate Majority leader Robert Dole (R-Kan.) that Congress will not increase the superfund tax or use it to pay for other programs.

Environmentalists, who have complained that the administration has completed only six cleanups during the first five years of the superfund program, said the new law ensures that EPA now has the resources to do the job.

"There should be no more excuses for inac-

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Peroxide Makers Look To New Applications

North American hydrogen peroxide producers are looking at new applications to fill a wide supply and demand gap that is developing as new capacity comes on stream. The broad range of potential new markets seems to ensure the gap will be filled.

The addition of new capacity, however, is a very real and formidable obstacle. Du Pont Canada expects its 80-million-pound-per-year Maitland, Ontario, plant will be on stream by January. Degussa Corporation says its equally large plant will be completed some time in the Spring. Lastly, Oxychem Canada, a venture involving Atochem and Liquid Air of France (jointly known as Oxysynthese) and the marketing network of C-I-L is scheduled to complete its 44-million-pound-per-year facility by September of next year.

At least some of the new capacity is intended for overseas export. Degussa, for instance, expects to export at least 10 million pounds in its first year of operation. The material will go to markets such as the Far East, Africa and South America that are now serviced by the company's European facilities.

In addition, imports into the US by Degussa and into Canada by Oxysynthese should be backed out over the course of next year as the two companies', North American facilities gear up.

For the most part, however, producers are looking to new or expanded markets to fill the supply gap. Most prominent, and the one producers expect to kick in first, is the pulp and paper industry.

Producers say several new thermomechanical and chemimechanical pulping (CTMP) operations are or will soon come on stream in Canada.

Observers say paper makers are moving to the CTMP method because of its high pulp yields: 90 percent of the tree is utilized as opposed to only 50 to 55 percent in traditional chemical methods.

However, according to peroxide makers, to achieve high brightness paper grades without overly degrading fiber structure, hydrogen peroxide is necessary in the bleaching stage of a CTMP process. Sodium hydrosulfite is used, they say, but mainly in making medium brightness grades.

While CTMP pulping will account for the bulk of pulp and paper growth, Kraft pulpers are also expected to increase peroxide use in the next few years. Degussa, for instance, feels Kraft pulp makers in the Southeast will double their peroxide use next year, coming albeit, from a fairly small base.

The company notes that hydrogen peroxide can be added to a Kraft pulping process at a number of different stages without any significant changes in equipment. Moreover, Degussa feels the pulp and paper industry in the Southeast has a good long-term outlook because the warmer temperature ensures a

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HYDROGEN PEROXIDE PLANT. Three new ones coming onstream next year will upset supply-demand balance.

Waste Rule for US Agency Under Fire on Capitol Hill

A bipartisan group of 70 members of Congress have urged Energy Secretary John Herrington to withdraw a controversial proposed rule that would allow Department of Energy to exempt mixed chemical and radioactive waste generated at its defense facilities from Federal and state regulations. "This proposed rule would allow DOE to continue dumping some of its mixed waste directly into the ground, even though this practice has resulted in serious contamination of the groundwater and surface water at some of DOE's facilities," says Rep. Mike Synar (D-Okla.), chairman of the House Goverment Operations subcommittee on environment, energy and natural resources.

He also notes that the private sector, for the most part, has been prohibited from disposing of similar waste in this manner.

Rep. Synar, who initiated the letter to Mr. Herrington, first protested the rule when it was proposed by DOE last November. A public hearing held by his subcommittee last July revealed a number of problems resulting from the way officals at DOE facilities were attempting to implement the rule even though it has not yet been adopted.

"At our hearing, we found that a large burial ground at the Savannah River Plant in South Carolina contained a lot of very nasty chemical hazardous waste as well as radioactive waste, including 10 tons of mercury, 10,000 gallons of fluids containing toluene, xylene and other hazardous chemicals, almost 200 pounds of PCB's, and 3,300 gallons of waste oils.

"DOE had known for some time that the groundwater beneath the burialground was contaminated with mercury above drinking

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Carbide Set to Build Air Separation Plant

The Linde Division of Union Carbide Corporation says that it will build an $11.2 million air separation plant in Marietta, Ohio, with construction slated to begin in early 1987. The state-of-the-art facility will produce up to 300 tons per day of nitrogen, oxygen and argon, according to E.G. Hotard, vice-president of Linde Bulk Industrial Gases. It will incorporate the latest energy-saving technology to operate with approximately 35 percent greater efficiency thatn previous designs.

"The new facility will be constructed adjacent to an Elkem Metals plant, which it will provide with gaseous oxygen via pipeline," Mr. Hotard says. In addition to supplying product to Elkem, the new plant will produce oxygen, nitrogen and argon in liquid form for other Linde customers in southern Ohio and West Virginia.

"These customers are currently being served by cryogenic transports that deliver liquid oxygen from other air separation facilities," he notes. "The Marietta plant will make it possible for us to provide even better supply reliability. It also will give Linde the capacity to serve the future growth needs of the marketplace, and to meet the increasingly stringent quality requirements of our customers.

Paul H. Williams, who has been named executive vice-president of Celanese Canada Inc. He was most recently technical director of Celanese Textile Fibers in Charlotte, NC.

Damon Biotech Seeking Partner

Damon Biotech, Needham Heights, Mass., last week said it is engaged in "serious discussions with a number of major multi-national pharmaceutical firms" relating to the development and marketing of the tissue plasminogen activator t-PA.

Currently, these discussions envision that Damon Biotech would manufacture t-PA using its proprietary technologies and a pharmaceutical firm would market the product and have primary responsibility for obtaining necessary regulatory approvals in specific geographical areas.

Plasminogen activators are a new class of biological products which show great promise in the treatment of cardiovascular diseases. Damon Biotech's t-PA is produced by the Company's proprietary "Encapcel" and cellular enhancer systems. Test results from preliminary studies of Damon Bio-

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Carbon Dioxide Plant On Way for Airco

A new $4 million carbon dioxide plant is being built by Airco Industrial Gases in Baltimore, Md. Slated for May 1, 1987 start-up, production capacity of the new plant will be 180 tons per day of liquid CO_2.

The Baltimore plant will be the eleventh liquid CO_2 facility owned and operated in the US by Airco. Liquid product produced at the new site will be sold in the Northeast US, primarily for food freezing or chilling, beverage carbonation, and a variety of industrial applications.

The new plant is being built next to SCM Corporation's titanium dioxide facility from which Airco will draw its raw product for liquid CO_2 production. Airco has contracted with Plant Process Equipment, Inc., League City, Tex., for plant construction.

Strontium Seen Strong Despite Competition

In spite of recession and competition from alternative materials, demand for strontium continued its strong growth in the first half of the 1980's, according to Roskill Information Services, Ltd., of the UK.

In terms of strontium carbonate, demand is expected to rise from 94,300 metric tons in 1985 to 105,000 in 1990 and around 27,000 metric tons by the turn of the century, Roskill says in a new report on the metal. The rise of Mexico as a producer in the early 1970's has been followed by the even higher rise of output in Turkey and Spain, and more recently by considerable growth in Iran, Roskill comments.

Miwon Plans to Build Lysine Plant in Korea

Miwon Inc., Seoul, Republic of Korea, says it plans to construct a $30 million l-lysine monohydrochloride production plant with an annual capacity of 20,000 metric tons in Kusan city, Chollabuk-du Province, Republic of Korea. Construction should be completed in September 1987 and has already started.

Miwon currently operates a plant in Busan City, Korea, with 10,000 tons of capacity.

Miwon and three Japanese companies — Ojinomoto, Kyowa Hakko and Toray — are the world's major producers. Miwon now exports 90 percent of the product. The new plant will export about $60 million of the feed additive annually which the company says, will increase Miwon's share of the international market from 10 percent to 20 percent.

Carbide Specialty Polyolefins Unit Open for Business in New Jersey

Last week, Union Carbide Corporation officially opened a new technology and operations center for its "Unipol" Specialty Polyolefins Division in Somerset, N.J.

The Specialty Division's research and development laboratories, information systems department, distribution operations center and eastern regional sales office will all be based in the new center.

R&D IN NEW CAB: A Union carbide Specialty Polyolefins technician tests resin for tensile strength.

Spokesmen for the company feel that this consolidation of research with administrative and sales departments will offer customers faster access to technical service assistance, product and safety data, and shipping and other information.

In addition to polymer evaluation, wet and analytical chemistry labs, the new Weston Canal Road unit features extensive high pressure pipe testing facilities, advanced rheology, fire and electrical test labs and raw material evaluation facilities including laser-read detectors. It includes bench-through intermediate-scale compounding facilities, as well as pilot-scale mixing lines, film and rotational molding equipment.

Research at the facility currently centers on polyethylene, the largest-volume polyolefin and the most widely used plastic in the world. Union Carbide has been involved with this market since its infancy in the early 1940's.

Researchers at Somerset are focusing on power and industrial cable and photodegradable packaging applications. They are also

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Clean Water Bill Urged by Lawmakers

Lawmakers and environmental groups called on President Reagan last week to promptly sign the reauthorization of the Clean Water Act, which sailed through the House by a 408-0 vote and was passed unanimously by the Senate, 96-0.

While House budget director James Miller is recommending that the President veto the measure because it is a "budget buster" that will increase the Federal deficit.

The legislation, which calls for an expenditure of $18 billion over the next ten years for sewage treatment facilities, was delivered to the White House Friday, giving the President until November 5 to sign or pocket veto the measure.

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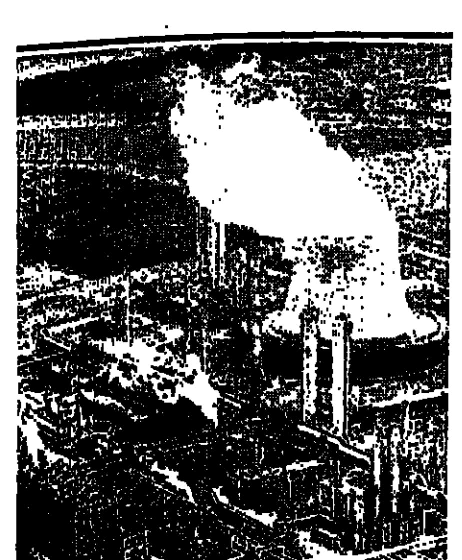

UK ETHYLENE CRACKER: Switch to lighter feeds is major factor in current European problem shortage.

Europe May Draw On US Propylene To Meet Shortfall

US exports of propylene could make up for a shortfall in supplies of the material in Europe as a result of a switch to lighter feedstocks in European ethylene crackers.

"With propylene prices being up to 0.9 times higher than those for ethylene at the moment, there must be a natural tendency for Western Europe to attract propylene imports, particularly from the US," Howard Browning of Imperial Chemical Industries PLC told this year's conference of the European Chemical Marketing Research Association in Antwerp, Belgium.

US ethylene crackers are producing 1 million to 1.5 million tons extra of propylene annually because by contrast, they are using a higher quantity of heavier feedstocks, mainly because of lower oil prices.

But Mr. Browning, aromatics marketing manager at ICI's petrochemicals and plastics division, thinks that any surge of US imports into Europe will not last for long because the present high price advantage of propylene over ethylene is likely to be shortlived.

The supply/demand picture in recent years shows that when propylene prices rise they soon decline as supplies are increased.

A major factor in the propylene market is that supply is not directly linked to demand because the material is a byproduct of ethylene production and refinery operations. Only when the price is right do some suppliers enter the market.

In mid-1985, when propylene was considered to be in short supply, the price relative to ethylene rose.

"This attracted a large volume of propylene, both from the refineries and from imports," Mr. Browning explains.

"Inevitably a surplus arose, and the price collapsed in early 1986, even after taking into account the major oil price changes and the relative strength of ethylene at that time."

Supplies were reduced, causing propylene prices to rise once again.

"(This) reflects the relative ease with which propylene supply can be encouraged or choked off by its pricing, whether from refineries or from imports into Europe," he notes.

"It also reflects the dynamics of a market where the product is not really made for its

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Acrylonitrile: Fiber Position Causes Change

Acrylonitrile producers are experiencing something of a flip-flop in the marketplace. After several years of weak domestic demand for acrylic fiber and strong export volumes, the position has been somewhat reversed. US acrylic fiber makers are in the midst of a strong revival, while the world market is now long in supply and weak in pricing.

US acrylic fiber producers have been helped by higher priced imports, brought on by the weaker dollar, and by fashion trends favoring acylic fibers. The producers have helped themselves by trimming capacity in the past two years by 10 percent.

The fashion emphasis has been on lightweight, brightly colored sweaters made from acrylic. And while demand for acrylic sweaters is up significantly, other fleecewear products, such as sweatsuits, are performing well.

These factors have helped produce a strong domestic acrylic fiber market. Another important factor, one source says, has been increased productivity at the textile mills. The effect has been an 18 percent upturn in domestic acrylic and modacrylic fiber shipments through the first nine months of 1986, according to the Textiles Economics

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UCC Chairman Sees Gains

Despite doomsayers, there is a turnaround in US industry competitiveness, says Union Carbide chairman Warren M. Anderson.

In remarks before the Chicago Economic Club, Mr. Anderson said, "I think you could go through almost every one of our industries, from shoes, to construction equipment, to textiles to machine tools, and find, in the midst of tremendous and unrelenting competitive pressures, companies doing what it takes to become winners again. Paying more attention to quality, paying more attention to customers, paying more attention to costs."

After the recession of the early 1980's devastated its major markets, he noted, the chemical industry, including Union Carbide, embarked on a massive program of rationalizing and restructuring that has changed not only the shape of the industry, but its prospects.

"When we turn to innovation, flexibility, technological change for comparative advantage," Mr. Anderson noted, "we are challenging our overseas competitors on our terms, not theirs. We now understand that our strength is moving, by means of technology and innovation, to the next generation — the new product that makes its predecessor not better, but obsolete." The prospect of a stronger US economy, he said, is why foreign companies are active in this country — building plants, stepping up investment and acquisitions, and joining in co-ventures with American firms.

"The point is that we do have strengths, that our decline is not inevitable, but instead is pointing us in new and promising directions," Mr. Anderson stated. "Management is learning that its real role is not in solving problems, but in creating the kinds of organizations that can solve their own problems.

Thalidomide Bill Aiding Ohio Man Escapes Veto

A private relief bill that will give an Ohio man born with deformed legs an opportunity to prove in court that he was the victim of the drug thalidomide and to seek damages from the government was signed into law by President Reagan last week.

The bill, which waives the statute of limitations to allow Steven M. McKenna of Cleveland to sue the Federal government for money damages for congenital defects, was accepted by the administration after the Justice Department reversed its position and recommended that the President sign the measure into law.

Mr. McKenna was born with short stumps for legs and appendage-like pieces of excess skin for feet that are the familiar trademark of thalidomide babies. The drug, a sedative, was taken off the market in 1962 after it was shown to be capable of causing severe deformities in infants whose mothers took it.

Rep. Edward Feighan (D-Ohio), the House sponsor of the bill, said his office was told by Justice Department officials two weeks ago that they were recommending a veto.

Pigments and Dyes in Plastics More Than Doubled, Study Finds

The US plastics industry is now consuming organic and inorganic pigments and dyes totalling nearly 500 million pounds valued at over $450 million, according to business consulting firm C. H. Kline & Co., Fairfield, N.J. This market value is up more than 100 percent from 1977. In fact, this is considerably higher than was expected at the beginning of the study, according to J. Jeffrey Cianci, senior consultant at Kline.

Titanium dioxide, at 330 pounds and $260 million, is by far the most popular pigment, accounting for 54 per cent of total dollar sales. Carbon black accounted for 108 million pounds in consumption but only $35 million in market value.

The categories of other organic pigments and inorganic pigments were valued at $82 million and $78 million, respectively. Finally, dyes represented a $20 million market.

Of the organic pigments, diazo condensates, phthalocyanine blue, perylenes and quinacridones represented the largest markets, together accounting for 62 percent of the value of this category. In addition, daylight fluorescents, diarylides, permanent red 2B, and phthalocyanine green each had markets of over $5 million. Of the inorganic pigments (not including titanium dioxide), cadmiums and chromes together accounted for 42 percent of the total market value. Chromium titanate, high temperature metal complexes, iron oxide, and molybdate orange each had markets of over $5 million.

The plastics colorants business is quite complex and difficult to track, Kline says. Pigments and dyes are sold to concentrate formulators, resin suppliers, and plastic fabricators. Formulated colorants now account for the majority of the colorants purchased by the plastics industry. Pellet concentrates are the most popular type of formulation, though liquid colorants, pre-colored resins, and other dispersions are growing rapidly in popularity.

Rationalization during the past decade has resulted in consolidation and acquisition among both basic colorant and formulated colorant suppliers. The industry is now poised for significant growth along with continuing growth in the plastics industry, Kline says. A continued trend towards the use of formulated colorants will increase value-added and provide more opportunities in the plastics colorants business, it's predicted.

Senate Shifts Are Expected After Election

Regardless of the outcome of the 1986 elections, significant changes are expected to occur in the chairmanships of several Senate committees that are responsible for legislation that governs the chemical and pharmaceutical industries.

Should the Republicans maintain their current majority, most of the changes would stem from the retirement of Sen. Barry Goldwater (R-Ariz.), whose departure from the Armed Services Committee will likely result in new leaders at the Judiciary and the Labor & Human Resources committees.

The current Judiciary Committee chairman, Sen. Strom Thurmond (R-S.C.), has indicated a desire to take over the Armed Services post. Sen. Thurmond's abdication, plus the retirements of Sens. Charles McC. Mathais (R-Md.) and Paul Laxalt (R-Nev.) would clear the Judiciary chairmanship for Sen. Orrin Hatch (R-Utah).

Sen. Hatch has not stated his intention, but many Capitol Hill observers anticipate such a move. Sen. Robert T. Stafford (R-Vt.) is next in line for the Labor & Human Resources chair, but he is expected to opt for his current position as chairman of the Environment & Public Works Committee.

Next in line at Labor & Human Resources is Sen. Dan Quayle (R-Ind.), who like Sen. Hatch is a conservative and a strong ally of business.

However, if the Republicans fail to retain control of the Senate, Sen. Joe Biden (D-Del.) would take over at Judiciary and Sen. Edward Kennedy (D-Mass.) would become chairman of Labor & Human Resources.

Sen. Kennedy worked with Sen. Hatch to move the drug export amendments through Congress this year after opposing the legislation in previous years.

The key change at the Judiciary Commit-

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Toxic Chemicals Problem in River That Caught Fire

The National Wildlife Federation (NWF) and the Ohio Wildlife Federation (OWF) last week released a comprehensive study of water quality in Ohio's Cuyahoga River that found widespread pollution in the river by toxic substances.

The two-year Cuyahoga River Study, conducted by NWF and OWF, examined the sources and effects of toxic substances in the Cuyahoga River and its major tributary, Tinkers Creek.

The study finds that toxic materials in the Cuyahoga seriously degrade water quality and limit fish and other aquatic life. Moreover, the study reports that the regulatory programs intended to control the discharge of toxics to the river system are generally ineffective.

The study makes sweeping recommendations for control of toxic discharges in Ohio and for improving water quality in the river and its tributaries.

In 1969 the Cuyahoga attracted national attention when the river caught fire. According to the report, the kind of pollution that caused the Cuyahoga to catch fire no longer exists, but pollution by toxic substances has become a hazard. Among these toxics are cyanide, benzene, and trichlorethylene.

Other highlights of the report by NWF and OWF are:

- Over 700,000 pounds of toxic metals and 90,000 pounds of toxic organic compounds are discharged into the river and its tributaries each year by the major industrial and municipal wastewater dischargers.
- Major industrial and municipal discharg-

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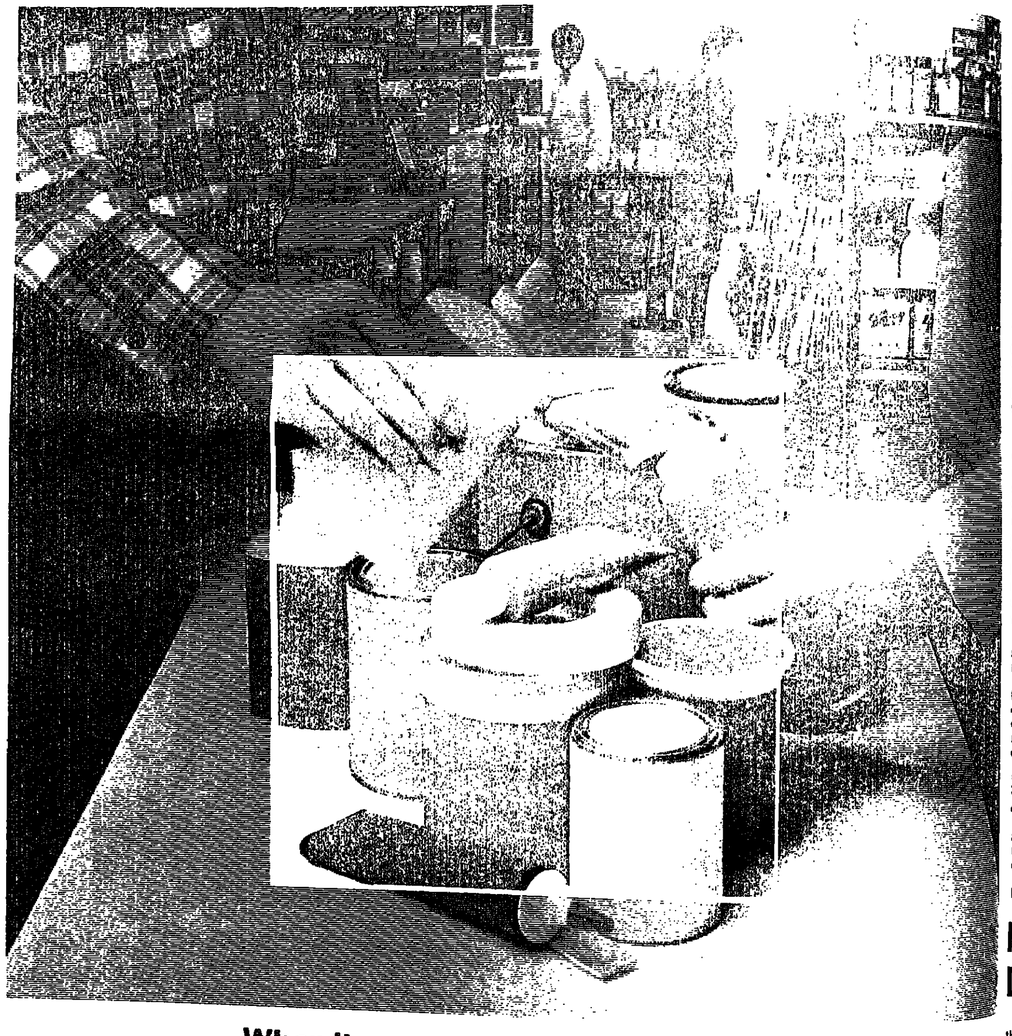

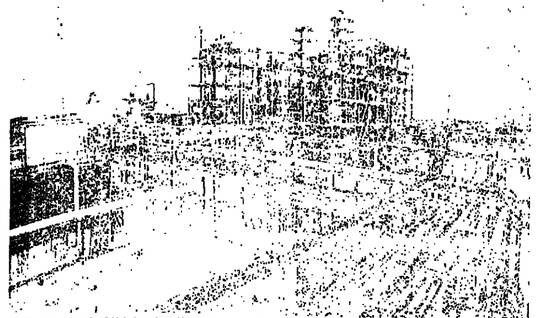

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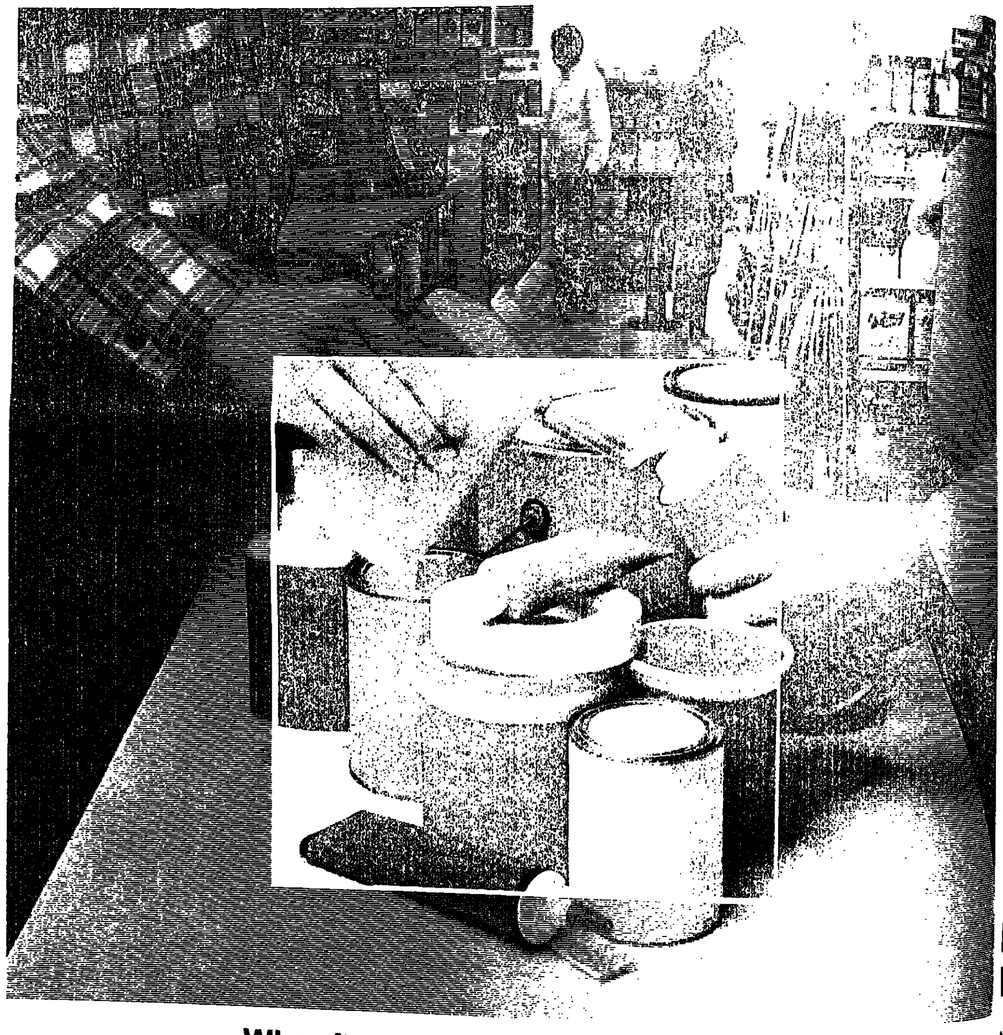

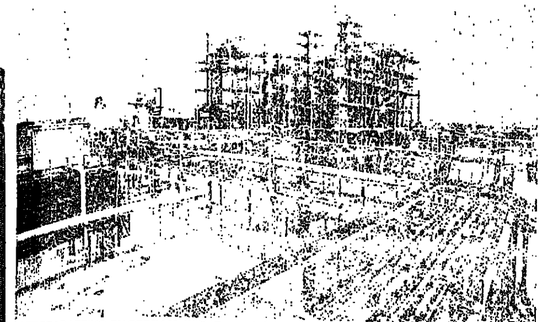

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News Capsule

Dexter Buys RPI

Dexter Corporation has completed the acquisition of Research Polymers International Corporation of Grand Prairie, Tex., for an undisclosed amount of cash. RPI produces thermoplastic polyolefin compounds, with annual sales expected to reach approximately $35 million this year. RPI will continue to operate under current management as a division of Dexter's specialty materials group.

Sterling Sells Unit

Sterling Drug Inc. says it has reached agreement to sell substantially all the assets of its Hilton-Davis Chemical Company subsidiary to H.D. Acquisition Corporation, a newly-formed corporation owned by Philip E. Kamins, who has interests in plastics, chemicals and machinery.

Du Pont Plans Facility

Du Pont Tau Laboratories, a manufacturer of photomask products used to make integrated circuits, is building a new photomask manufacturing plant near Austin, Tex., to meet demand from the semiconductor industry in the Southwest. The 30,000-square-foot facility is expected to be in operation in mid-1987.

Air Products Sets Date

Air Products & Chemicals Inc. says it will begin production of high-density polyethylene "Airopak" barrier containers at a new facility in York, Pa., by January 1987. The company will market the containers to producers, packagers and distributors of paint-related solvents, pesticides, cleaning compounds, auto additives and other petroleum or hydrocarbon-based products in the Northeast.

Airco Builds Plant

Airco Industrial Gases is building a new $4 million carbon dioxide plant in Baltimore, Md. The 180-ton-a-day plant is slated for startup in May 1987. Liquid product produced at the new site will be sold in the Northeastern US primarily for food freezing/chilling, beverage carbonation, and a variety of industrial applications.

IDC Opens Laboratory

International Dyestuffs Corporation has opened a new warehouse and customer service laboratory in Johnstown, N.Y., to service the company's dyestuffs and pigment markets in the Northeast. IDC supplies colorants to the textile, paper, leather, ink and plastics industries.

First Miss. Unit Expands

Quality Chemicals Inc., a wholly-owned subsidiary of First Mississippi Corporation, plans to double its current plant capacity by the end of next year. Quality Chemicals is a custom manufacturer of pharmaceuticals and fine organic chemicals.

Celanese Methanol Moves

Celanese Canada, Inc., and Alberta Gas Chemicals, Ltd., completed the first-ever shipment of methanol by pipeline last week from Alberta to Eastern Canada. The methanol was shipped through the Cochin Pipeline System, which is operated by Dome Petroleum, Ltd., through its affiliate Cochin Pipe Line, Ltd., on behalf of Dow Pipeline, Ltd., AG Pipelines (Canada), Ltd., Petro Canada, Inc., and Shell Canada Resources, Ltd.

Warner-Lambert Sues

Warner-Lambert Company, Morris Plains, N.J., has filed suit in US District Court for the Northern District of Illinois against My-K Laboratories, Inc., Skokie, Ill., charging unfair competition by allegedly imitating the trade appearance of Warner-Lambert's "Benylin" cough syrup. My-K Laboratories formerly operated under the name Bay Laboratories, Inc.

Robert J. Dircks, who has been elected executive vice-president of Warner-Lambert Company. He was previously senior vice-president and chief financial officer.

Norsk Hydro To Go Ahead On Magnesium

Norsk Hydro formally announced its decision last week to build a $290 million (US funds) magnesium plant in Quebec, Canada. "I am pleased to announce that Norsk Hydro has made the final decision to build a magnesium plant in Canada," said Mr. Torvild Aukvaag, president of the Norwegian company, the largest in Norway, at a press conference in Montreal.

The project had previously been recommended by the company's board of directors, and has now been finally approved by the Norsk Hydro corporate assembly.

The plant will be built in the Becancour Waterfront Industrial Park on the St. Lawrence River. Construction is scheduled to begin in the spring of 1987, and will be completed in the first months of 1989. The plant will operate with Canadian management and staff.

The Becancour plant will have an annual

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USX Studies Restructuring; Icahn Bid Expires

The $31-per-share bid by Carl Icahn for USX Corporation (formerly United States Steel Corporation) expired last Thursday without any word from the New York financier and corporate raider about his further intentions.

Officials of USX had met with Mr. Icahn during the week. Neither party divulged anything about these conversations, but Mr. Icahn earlier had stated that if what he termed his friendly offer for the diversified steel, chemicals and petroleum company was not accepted, he would consider launching a tender offer to the company's stockholders.

Mr. Icahn left the door open for a friendly settlement by indicating that if USX were restructured in a way adequately beneficial to stockholders, he would drop his attempt to acquire the company.

Two weeks ago USX took its first big restructuring step by arranging the spin-off of its chemicals division by transferring its assets to a new company called Aristech Corporation, which eventually will be held entirely by the public. Aristech will initially purchase 32 percent of its shares from USX, but these will be retired.

DuPont, Allied-Signal Record Higher Income

Among the major chemical companies, the strongest earnings increases last week were reported by Allied-Signal, Inc., E.I. duPont de Nemours & Co., Celanese Corporation and American Cyanamid Company. Others reporting increases included Pennwalt Corporation, GAF Corporation and Witco Corporation.

DuPont's third-quarter net income of $343 million was 25 percent higher than a year ago and was achieved despite the adverse effect of lower petroleum prices on Conoco Incorporated. Most of Du Pont's chemical and specialty products businesses posted strong results, reflecting an improved cost structure and strength overseas, states Richard W. Heckert, chairman. After-tax operating income in chemicals and specialty products was up 65 percent from a year ago, Mr. Heckert noted.

Earnings of Celanese in the third period amounted to $50 million, an increase of 17 percent from a year ago, as chemicals, fibers and specialties all made significant contributions, according to John D. Macomber, chairman and chief executive officer, who also cited ongoing strength in worldwide sales of engineering resins.

Allied-Signal registered record third-quarter net income of $164 million, an increase of 73 percent from $95 million a year ago.

Edward L. Hennessy, Jr., chairman and CEO, said that income for the company's three operating segments more than doubled from $70 million to $153 million, primarily as a result of improved aerospace sales and higher earnings for the automotive aftermarket and fibers businesses.

American Cyanamid's earnings from continuing operations and net earnings in the third quarter were $44.8 million, up 29 percent from $34.8 million a year ago. George J. Sella, Jr., chairman and CEO, said that the medical business profited from strong sales growth of pharmaceuticals in the US and in international markets.

Worldwide sales of Cyanamid's agricultural products were about even in the third quarter compared with a year ago despite the company's withdrawal from the diammonium phosphate business on June 30, Mr. Sella notes. He cites a better performance of animal and pesticide products.

Most notable of all was the improvement in Pennwalt's results, as the company recorded earnings of $13.9 million versus a loss of $37.8 million in the 1985 period.

Excluding the negative effect in 1985 of restructuring charges, operating earnings

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Petro-Lewis Bailed Out

FPCO Incorporated, New Orleans, La., a company formed at the direction of Freeport-McMoRan, Inc., has signed a definitive agreement to participate in a plan of reorganization for Petro-Lewis, Inc. as part of Freeport-McMoRan's effort to acquire Petro-Lewis.

Petro-Lewis is a limited oil and gas partnership that has been facing bankruptcy because of the decline in oil prices. Freeport-McMoRan has a tender offer outstanding for Petro-Lewis, but the offer has fallen short of the majority sought because certain holders of Petro-Lewis bonds have declined to tender their securities. Participation in the Petro-Lewis reorganization is expected to offer inducements for these holdouts to tender their securities.

FPCO said that it has accepted for payment all units of beneficial interst in American Royalty Trust, a Petro-Lewis affiliate, tendered to date, and that it has extended through last Friday, October 24, the offer for the trust units.

FPCO also has purchased the Petro-Lewis subsidiaries that manage American Royalty Trust and own the properties of the oil and gas interests held by the trust.

FPCO also announced that because the minimum tender condition in its offer for Petro-Lewis debt securities has not been satisfied, FPCO is not purchasing Petro-Lewis debt or equity securities at this time.

FPCO is urging bond holders to tender and said it hopes that enough bonds are tendered so that it will be economically attractive for FPCO to close on the acquisition, allowing Petro-Lewis "to avoid the costly ordeal of bankruptcy."

Accordingly, FPCO extended until 5:00 p.m. last Friday its cash tender offer for all outstanding debt and equity securities of Petro-Lewis, and also extended withdrawal rights with respect to the offers for the debt securities until that date.

NL Industries Turns Down Bid for Chemical Operation

NL Industries, Inc., New York-based producer of specialty chemicals and coatings materials and provider of petroleum equipment and services, last week rejected a proposed leveraged buyout of its chemicals operation for about $920 million.

Instead, the company disclosed it was exploring a plan whereby its petroleum services and chemicals units would be spun off separately to holders of different classes of the company's stock.

NL said that the proposed buyout by an unidentified financial institution called for payment of $13.25 a share in cash and $2 a share in 11.5 percent preferred stock, an amount that would equal somewhat over $915 million for the unit's 60 million Series C shares.

The plan NL is exploring would result in the separation of its petroleum services and its chemical operations by early 1987, several months earlier than it would have been accomplished through a previously announced proposal.

The proposed separation would result in present NL Industries common and Series A preferred stockholders owning NL's petroleum service operations and the holders of NL's Series C preferred stock owning the chemical business.

It is intended, NL says, that after the separation, the shares of both companies would be publicly traded. Completion of the transaction would require, among other things, the processing of filings with Securities & Exchange Commission, approval of a majority of the directors of NL Industries not affiliated with Amalgamated Sugar Company, acting upon the advice of an independent investment banker selected by them, and the approval of NL Industries' common and preferred stockholders.

Dallas, Tex., investor Harold Simmons, who controls 5 of NL's 9 board seats, would also receive 5 of NL Chemicals' 9 seats after the spin-off. He is a principal in Amalgamated Sugar.

Mr. Simmons' 5 seats on the board voted against the proposed buyout by a large financial institution in a vote that was 6 to 2, with one director not participating.

In voting against the institution's proposal, Mr. Simmons said that he desired that "there be an opportunity for NL Chemicals to demonstrate its value as an independent company rather than selling the chemicals business at this time."

OILS, FATS & WAXES

Palm Oil Hits Eight-Month High; US Buyers Switching to Soy Oil

The price of palm oil is rising appreciably, hitting levels that have not been seen since last February. Palm pricing is joining coconut and soybean oil pricing in the strengthening that has been taking place throughout the world oils market for the past several weeks.

"The coconut oil market has been very strong, which nobody really expected," says a trader, who notes that palm is now following coconut oil's lead. That belief mirrors those of most of the traders in the market today.

Another surprise is lower-than-expected production of palm oil in Malaysia for the months of September and October. Estimates place production for each of those months at approximately 50,000 tons less than last year's figures for the same months.

Although there are no shortages, the glut situation that has dampened prices for much of the year is not now as severe as people thought it would be. Production levels for the rest of the year are also expected to be below those of last year.

Demand for palm oil in the US is falling noticeably because of these high prices, sources say. Both spot and forward markets here are described as quiet, with many consumers turning their attention to US soybean oil.

US TRADING PALM FOR SOY

Sources believe that many US oil consumers are trading their palm for soy oil. Consumers are said to be selling their forward positions on palm oil, bought at the very low prices of several months ago, and taking their profit in today's strong market. Subsequently they are satisfying their oil needs with soybean oil, sources say.

The relative apathy of the US market to palm oil has not been found throughout the world market. India bought heavily in the last two weeks, helping to keep the strong market buoyant. Many traders consider it a healthy sign for the market that India chose to buy in the midst of firm pricing and upward movement. This indicates that palm is not just experiencing a brief rally which world consumers are expecting to end soon, sources say.

Malaysia is apparently "comfortable going with the market flow" to higher prices, says a trader. He points out that, while the Malaysians cannot be pleased with a slowdown in US buying, they have developed other markets to the point that they need not cater to the needs of the US market. Some of these other markets include India, Pakistan and the USSR, the trader says.

Adding to the Malaysians' comfort with raising its pricing is the easing of the glut situation. Lower production for this month and last month is attributed to several factors, most notably the reduction of efforts by farmers to produce a bumper crop of a very low priced product. Their investment in fertilizer, for instance is widely thought to be less this year than last. Other factors include tree stress, or "tired trees," resulting from heavy yields last year, and lower than usual rainfall in Malaysia during this year.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP

Coconut oil, NY, 2¾ per lb.
Cottonseed, 41% bulk, Memphis, $5 per ton
Cottonseed oil, Valley, ½c. per lb.
Grease, white, choice, tanks, dlvd., NY, ¼c. per lb.
Palm oil, NY, 1½c. per lb.
Peanut oil, Southeast (restricted), 2c. per lb.
Soybean, 44% bulk, Decatur, $5 per ton
Tallow, inedible, fancy guar., tanks, dlvd, NY, ¼c. per lb.
Tallow, inedible, fancy bleach, tanks, dlvd. NY, ¼c. per lb.

CHANGES/DOWN

Corn oil, Midwest, ¼c. per lb.
Lard, loose, bulk tanks, Chicago dlvd., ½c. per lb.

OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	80.49
Oct. 17, 1986	78.46
Sept. 26, 1986	81.59
Oct. 25, 1985	83.05

Chemical Prices Start on Page 40

FRIDAY SPOT PRICES

MARKET CLOSE OCT. 24, 1986

CRUDE VEGETABLE OILS		
Coconut oil, NY	lb.	.21
Coconut oil, Pacific	lb.	.NA
Corn oil, Midwest	lb.	.19½
Cottonseed oil, Valley	lb.	.18
Linseed oil, Minneapolis	lb.	.26
Palm oil, NY	lb.	.16
Peanut oil, Southeast (restricted)	lb.	.30
Soybean oil, Decatur	lb.	.14½
REFD. VEGETABLE OILS		
Coconut oil, t.w., NY	lb.	.26
Corn, jumbo tanks	lb.	.28
Cottonseed oil, jumbo tanks, NY	lb.	.25½
Peanut oil, jumbo tanks, NY	lb.	.3788
Soybean salad oil, NY	lb.	.1952
OILMEALS		
Cottonseed, 14% bulk, Memphis	ton	$140
Linseed, extracted, 34% bulk, Fargo	ton	$105
Peanut, 50% bulk, SE, Alabama	ton	$185
Soybean, unrest., 44% bulk, Decatur	ton	$151
FATS & GREASES		
Grease, white, choice, tanks, dlvd., NY	lb.	.10¾
Grease, yellow maximum 10% ffa tanks	lb.	.9
Lard, loose, bulk tanks, dlvd., Chicago	lb.	.17
Tallow, inedible, fancy, tanks, dlvd., NY	lb.	.12¼
Tallow, inedible, bloh., tanks, dlvd., NY	lb.	.12

VEGETABLE OILS

LINSEED OIL — The linseed oil market has been resisting the downward pressure normally associated with the harvest. This is explained mainly as the result of uneven harvesting activity, delayed and interrupted by rain throughout the month of September.

"Typically, we've had a major part of the harvest done by now," says an industry source, "but this year the harvest has been strung out from the end of August until now." The result, he says, is that refiners have been fed a slow, constant supply of oil, preventing the softening effect on the market of a sudden flood of material).

PALM KERNEL OIL — The price of this oil has gone up substantially, to currently quoted levels of 18½c. to 19¼c. per pound in bulk quantities, c.i.f. basis, at US ports. US and European dealers are trading the material, but US consumer interest is "almost dead," says a trader. "The market is overpriced," says another, who expects it to come down from these levels.

SOYBEAN OIL — The price of soybean oil remains strong, despite a relative lack of consumer interest in the US, sources say. The price is maintaining its firm standing largely because of the support felt in the markets for all of the major oils.

Soybeans are enjoying good export demand at the Gulf, according to an industry source, who says that domestic bean demand is also high, fueled by a good crush rate. The combination of bean demand and a firm world oils market is expected to keep soy oil pricing at its current level for the foreseeable future.

TUNG OIL — The price of this oil is quoted

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OILS, FATS & WAXES

Continued from Page 11

between 31c. and 33c. per pound in tanks, imported into New York. The market has been fairly quiet, sources say, with ample supplies helping to keep the price down.

"We were told that once the price came down and stayed down for a while, tung would recover its market. We're still waiting for people to come back to it, but the signs aren't there right now," a source says. Buying is said to be largely hand to mouth, with consumers taking "only what they absolutely need," according to an industry source.

FATS & GREASES

TALLOW — This market has been strengthening lately, marked by a resurgence of domestic consumer demand. A number of US exporters have been in the market to cover sales made one to two months ago, sources say.

Apparently, the current ease in production caught some exporters off guard, who had made earlier sales based on higher production expectations. Consequently, they have had to buy fairly heavily to meet those commitments, according to an industry source. Strong domestic buying at the levels brought up by the exporters is the source of the current market strength, sources say.

WAXES

CARNAUBA — The price of number one yellow Parnahyba is quoted between $1.95 and $2.05 per pound, and yellow number one Ceara is quoted between $1.75 and $1.90 per pound, both in bags, in ton lots.

Refined North Country number two wax is quoted between $1.55 and $1.65, and North Country number three, centrifuged, is quoted at $1.10 per pound, both in bags, in ton lots.

The market has been very stable, sources say, with buying taking place at normal or slightly below normal volume. Readily available supplies of carnauba are expected to keep the pricing from rising above current levels for at least the next several weeks.

MISCELLANEOUS

METHYL ESTERS — Henkel Corporation has announced that it is raising the price of its 12-18 grade methyl esters. The price will be increased from 25c. to 33c. per pound in tanktruck quantities, effective November 1.

Thermoplastic Line Introduced by BASF

BASF Corporation has formed a thermoplastic polyurethane elastomer business specializing in the market development and sales of the company's TPU "Elastollan" for the injection molding, blow molding, and extrusion industries in the US.

According to Manfred Buller, the company's group vice-president for polymers, the formation of this new business unit "reflects BASF's continuing commitment to US markets." BASF has sold "Elastollan" in European and other markets for more than 20 years, he adds.

"BASF is offering its 'Elastollan' products in the US as a consequence of steadily growing demand for TPU in blow molding, injection molding, and extrusion markets worldwide," Mr. Buller says.

AROMATIC ORGANICS

Phthalic Advance Holds Firm On Reports of 'Snug' Market

Phthalic anhydride producers say that the October 1 industry-wide price increase has been successful. Higher feedstock costs, supply disruptions, and strong export demand are said to have provided support for the move.

"The price is holding firm" at the 1 cent per pound higher level, says one producer, and another comments that "this is the most successful increase in some time."

"Phthalic anhydride has passed the tight state," asserts the latter source, as only two of the six production facilities in the country have not experienced some production curtailment over the past several weeks.

"The market is very snug," agrees another producer. "We've been totally sold out, and I believe (one or two other producers) are in the same boat." Among the producers, it is reported that Exxon Chemical Americas and Sterling Chemicals have curtailed production this month due to catalyst changes, and that Koppers company experienced five days of downtime last month due to a mechanical problem.

Most seriously, Stepan Company has only recently resumed normal production at its 170-million-pound-per-year Millsdale, Ill. site. Production was hampered for over two months by a blower problem that necessitated equipment replacement. "We were barely running" until the problem was solved, says a company spokesman.

SUPPLIES ALLOCATED

It is said that Exxon is limiting the amount of material its customers can buy because of the low supply availability. One producer says that Exxon was prompted by the market's tightness to obtain a 1-cent-per-pound increase October 1 (on top of the industry-wide move) in the company's contract price spread over feedstock orthoxylene costs.

It is believed that Exxon, for the most part, is the only phthalic anhydride producer with contract pricing tied to a definite spread over orthoxylene. Exxon's move this month is said to be related to last quarter's industry-wide price move in which, at a time when orthoxylene prices were stable, Exxon did not participate.

This month's industry-wide 1-cent-per-pound increase has not met with the controversy of the third quarter move in part because feedstock costs have risen in recent months. Producers say that, essentially, they have passed through higher orthoxylene costs.

Orthoxylene pricing, over the course of the third quarter, firmed from a 12¾-cent to 13-cent-per-pound level to a range between 13½ cents and 13¾ cents per pound.

Phthalic anhydride producers say that higher orthoxylene costs have been supported by overseas production disruptions. "The Soviet Union was exporting large amounts (of orthoxylene) to the US, but their plant went down," says a source. In addition, it is reported that a production problem in Mexico has compelled that country to import material.

Nonetheless, producers stress that they do not view movement in phthalic pricing as necessarily reflecting the feedstock picture. Supply-demand considerations are paramount in pricing matters, says one producer, and others say they like to believe that orthoxylene-tied contract formulas are on their way out. "Phthalic ought to have some intrinsic value in the marketplace," one producer says.

Producers report steady business domestically, and a sharp increase recently in export activity. According to Bureau of Census 5.164 million pounds of material were exported during the month of August, up sharply from previous months. For the first seven months of the year through July, the entire amount exported was only 3.680 million pounds.

Producers report heavy exports from the West Coast to Far East destinations such as Taiwan and Mainland China. Producers say that low freight rates and the weakening of the US dollar have enabled suppliers here to meet demand from a Far East that is "boiling for phthalic."

One producer says that freight rates as low as 3 cents per pound for material moving from Chicago to Taiwan have been available for several months because of the "tremendous glut of empty containers" in the Western US as a consequence of heavy US imports of Far Eastern goods.

The weakening of the US dollar in relation to Far Eastern currencies has been a more recent phenomenon that has provided the impetus for the US export surge, producers say.

They expect export levels to continue to run very high for the balance of the year, and believe the total for the year could well double last year's 13.0 million pounds.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP

None

CHANGES/DOWN

None

AROMATICS INDEX

The Aromatic Organics Index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	167.84
Oct. 17, 1986	167.84
Sept. 26, 1986	167.84
Oct. 25, 1985	167.84

Chemical Prices Start on Page 40

AROMATIC ORGANIC IMPORTS: AUGUST

CENSUS BUREAU REPORTS ON THE TOP 24 AROMATICS.

		AUGUST		JULY	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Alkylphenols	lb.	213,693	720,1256	261,022	751,662
Aniline	lb.	2,198,778	718,460	---	—
Benzene	gal.	14,423,398	9,618,595	23,033,528	17,115,644
Benzoic acid	lb.	173,842	59,161	294,602	137,183
Coaltar*	lb.	13,798,023	1,056,750	26,340,182	1,644,362
Cresote oil	gal.	1,258,605	988,630	58,472	34,021
Cresols, o-, m-, p-	lb.	385,720	328,635	510,807	359,255
Cumene	lb.	16,205,433	1,759,305	51,679,371	6,055,673
Cyclohexane	lb.	4,674	8,740	4,780	6,186
Cyclohexanone	lb.	---	---	---	—
Fumaric acid	lb.	275,572	106,188	114,640	44,636
Maleic anhydride	lb.	599,567	248,468	411,168	176,230
Melamine	lb.	1,482,567	556,701	1,255,040	497,458
Naphthol AS & derivatives	lb.	766,521	560,690	496,968	383,107
Phenol	lb.	506	6,214	532,773	90,754
Phthalic anhydride	lb.	928,125	188,662	1,063,446	210,365
Picolines	lb.	63,074	62,807	253,554	208,103
Styrene monomer	lb.	24,307,928	3,373,309	21,906,479	2,631,562
Toluene	gal.	20,477,432	14,324,924	15,284,070	9,408,290
Vat blue 1	lb.	1,062,943	1,990,080	433,104	497,932
Xylene	gal.	6,630,835	4,394,113	9,240,121	6,309,122
o-Xylene	gal.	1,812,962	1,641,055	2,417,949	2,003,365
p-Xylene	gal.	2,256,036	3,069,947	5,666,061	7,760,019
Xylenols	lb.	2,000	4,663	11,023	38,355

*Includes pitch of coaltar, blast furnace, tar oil, etc.

BTX — Spot benzene pricing held fairly steady last week between 83c. and 84c. per gallon. Sources expressed uncertainty over the likely path pricing will take in the coming weeks.

There appear to be several factors supporting firm pricing, including Organization of Petroleum Exporting Countries' (OPEC) agreement to extend production controls, healthy demand for styrene, and high benzene running rates that have resulted in the postponement of turnarounds.

However, as one source says, the direction of the market often runs counter to conventional wisdom.

There was only one bearish factor the last day or two, high crude oil inventories, said a trader early last week, but this appeared able to offset a number of bullish factors.

Another trader points out that many benzene buyers loaded up prior to the industry-wide move to 85c. per gallon in mid-September, and then held off buying for quite a while.

"People felt that, with the uncertainty of OPEC, time was on the side of the buyer," he says. This prognosis has not held up, and pricing has held steady.

Spot toluene is quoted at 67c. per gallon, a price equal to the previous week's level. A source observes that octane demand in the US has been fairly healthy, but that there has been a lull in European demand. Spot xylene is quoted between 76c. and 77c. per gallon.

PHENOL — The 2c.-per-pound October 1 price initiative did not succeed, and temporary allowances were instituted.

However, "operating rates are very high, and raw material pricing has been firm," says a producer, in justifying the need for a price increase.

STYRENE — The extent of the industry's price increase for November 1 is unsettled at this time. Chevron Corporation and Cosden Chemical announced price increases the previous week to 27c. per pound. It is believed that one other producer also raised its price around the same time.

Last week, Borg-Warner Corporation reconfirmed that its price is 27c. per pound less a 3c. per pound temporary voluntary allowance (TVA).

The company says that it aims to "establish a minimum selling price of 24c. per pound."

Dow Chemical USA confirmed to its customers that the company's list price is 26c. per pound.

Huntsman Chemical Corporation says it has not changed its list price from the level of 25c. per pound less a 3c. per pound TVA. Sterling Chemicals reconfirmed to its customers a list price of 26c. per pound. These prices all became effective October 1.

Toxic Chemicals Problem

Continued from Page 5

ers at the cities of Akron and Cleveland are largely responsible for the discharge of toxic materials that degrade water quality and limit biota in the Cuyahoga River system.

- The regulatory programs that are intended to control the discharge of toxic pollutants to the river system, including the National Pollutant Discharge Elimination System (NPDES), are generally ineffective in the system and are poorly enforced.
- NPDES permits of many point source dischargers have been expired for several years; discharge limits for toxic materials in effective permits are practically nonexistent; and, where toxic discharge limits do exist, they are frequently violated.

Based on their study, NWF and OWF recommend that the Ohio EPA aggressively implement and enforce the Clean Water Act in Ohio. Specific recommendations include:

- Immediate reissuance of all expired NPDES permits to industrial and municipal dischargers.
- Issuance of NPDES permits that regulate the discharge of all toxic pollutants (including concentration and load limitations).
- Scheduling of permit reissuance based on discrete stream, river, or watershed segments so that all permits for dischargers into a given segment expire at the same time.
- Requiring industries and publicly owned treatment works with the potential for discharging toxic materials to perform whole-effluent toxicity testing following methods developed by EPA.
- Implementation of an enforcement program to ensure that expired permits are revised, that the discharge limits in new permits are strictly followed, and that all toxicity in discharges is regulated.

The study concludes that control and elimination of the discharge of toxic materials from point sources in the Cuyahoga River basin, as well as assessment and ultimate elimination of the discharge of toxic materials from nonpoint sources, will result in improved water quality in the Cuyahoga River system.

ALIPHATIC ORGANICS

Acrylonitrile: Fiber

Continued from Page 5

Bureau, the statistical arm of the Man-Made Fiber Producers Association.

But while the US acrylic fiber industry is booming at home, the overseas market is plagued by oversupply and price erosions. These conditions have played an important factor in poor export prices for US acrylonitrile. Acrylonitrile export prices have also been seriously damaged by oversupply in the acrylo market, and by tumbling raw material propylene prices.

Ironically, the strong US market for acrylic fibers has contributed to the weak pricing situation in the overseas market. The 18 percent gain in domestic shipments so far this year, coupled with domestic cutbacks in acrylic fiber capacity, have kept US fiber producers virtually out of the export market. US fiber producers shipped 148 million pounds of acrylic overseas in the first nine months of 1985. By comparison, US fiber exports so far this year have totalled only 65 million pounds. One source says "there has been intense price competition" by foreign acrylic makers to fill the void left by the US producers. This in turn has helped drive down the international price of acrylonitrile.

US acrylonitrile export volumes have remained high this year, but prices have steadily fallen. A large portion of the decline has been attributed to falling raw material propylene costs, but exporters also blame terrible fiber prices and excess supplies of acrylo, especially in Europe. At the beginning of 1986, US acrylo producers were exporting material for over $700 per metric ton, but that price has now fallen to $500 per ton, C&F to the Far East following a $20 price slide from the third to fourth quarters, according to one producer.

SPOT PRICES DRIFT LOWER

In the European market, spot prices have drifted even lower. A large influx of Eastern Bloc material, one producer explains, has helped pushed the European spot price down to $480 per metric ton, C&F. At this price, the US producer says American acylonitrile manufacturers are staying out of the European market. European oversupply is also attributed to the recent start-up of an acrylo plant in Turkey, and the return of Enichem's Italian facility.

Another source of weak acrylo export prices has been domestic tollers of acrylonitrile. One producer explains that earlier this year Monsanto, and later Sterling Chemical, were converting propylene and ammonia at Texas City for traders and other customers for a fee. The people tolling the acrylonitrile then sold the material in the export market, often at extremely low prices. Though the practice is profitable to the Texas City owners, it also contributed to the general decline in acrylo export values. A Monsanto offical estimates that up to 40 million pounds of acrylonitrile per quarter have been tolled at Texas City. He also estimates that these traders were selling product for up to $60 per metric ton below traditional acrylo makers' prices.

The weak acrylo prices have been very discouraging to US producers. They have been operating at high rates all year, and prices continue to slide. One company, American Cyanamid, says that because pricing on the export market is so weak, the company is pushing forward some planned maintenance work from early next year to next month, and will take a portion of its capacity out of production. Market tightness was also aided by an extended turnaround taken by Standard Oil Chemical Co. in August and September.

Now, acrylonitrile producers are faced with rising propylene prices both here and in Europe. Propylene sellers have pushed for October prices increases of up to 2 cents per pound over the current 9.5-cent levels. The acrylo makers say the downward pressure on prices applied by acrylic fiber producers makes it impossible for them to accept higher raw material costs.

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n-BUTANOL - Operating rates pushing 95 percent of capacity has allowed US n-butanol producers to launch two largely successful price increases in the second half of 1986. And since the price inceases have come at a time when raw material propylene prices have been weak, producers have experienced a smart upturn in profitability as well.

In July, n-butanol producers posted a 3c. per pound price increase, and have followed that with a 2c. per pound hike in October. One producer says "most of the July increase stuck," and the present initiative is holding up as well.

The reason for the relative success of the price advances, he says, it that "not a lot of butanol is available now, and producers can resist" customer efforts to knock the price down. This producer estimates that 1986 domestic production will reach 1 billion pounds, while current operational capacity stands at 1.060 billion pounds.

This tight balance has been created by a steady 3 percent annual increase in consumption over the last three years, coupled with a large reduction in North American production capacity. Since late 1984, Union Carbide shut a 270-million-pound unit in Puerto Rico and Celanese closed 175 million pounds of n-butanol capacity at Bishop, Tex. In addition, BASF closed an oxo-alcohols unit in Montreal, Canada, and Shell is believed to have idled some capacity at Deer Park, Tex. Bucking this trend, Carbide has been gradually expanding its Texas City, Tex. plant. The company began a 200-million pound expansion there two years ago, and is still 50-million pounds shy of its goal.

As a result of these rationalizations, and demand increases, n-butanol plant operating rates have jumped from 70 percent of capacity or worse in 1984, to the current 95 percent level. Not coincidentally, price increases that were launched in 1984 and 1985 failed, while two increases in the past three months have been largely successful. Yet, while n-butanol producers have found recent success in their price announcements, n-butanol prices still remain below levels quoted in the late 1970's.

CARBON BLACK OIL — Market sources report that Exxon has posted a new price of $12.50 per barrel for carbon black oil, an increase of $1.50. The increase is effective November 13, but one source says little product is available from Exxon before then.

Observers say Exxon is the major carbon black oil producer and that most often suppliers follow its lead in pricing.

The oil was increased by a similar amount in September, when it had been priced at a long-time low of $9.50 per gallon. Carbon black producers absorbed the September increase; it remains to be seen if they will attempt passing one through to customers.

VINYL CHLORIDE MONOMER — The market price for the vinyl precursor remained at September's 15c. to 16c. per pound level.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP
None

CHANGES/DOWN
None

ALIPHATICS INDEX

The Aliphatic Organics index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	222.80
Oct. 17, 1986	222.80
Sept. 26, 1986	222.80
Oct. 25, 1985	222.80

Chemical Prices Start on Page 40

ALIPHATICS

but the market remains so tight that one producer says several spot purchases have been made at ½c. above this level. The export market price is also above domestic levels, the source says.

VCM continues to be in tight supply. Exports of monomer surpassed the billion pound mark in August, and the domestic vinyl market is booming. One monomer producer said sales of PVC last month reached an all-time high for September. The producer says there is enough monomer for domestic consumers, but importers of US VCM are scrambling to get enough product.

A producer says the supply tightness is illustrated by the current reduction in monomer "exchanges." He says producers normally borrow large quantities of VCM from other manufacturers, but that practice is now restricted.

The tight supply-demand balance would normally warrant higher selling prices, one source says, but weaker prices for PVC during the third quarter has effectively held down VCM values. However, PVC price increases have been posted for October and November, so VCM makers may get an opportunity to further firm their own selling prices.

VCM is expected to remain in tight supply for the balance of the year, sources say, even though November and December are traditionally slow demand months. Domestic demand may taper off as the housing industry slows down, but export sales should stay strong. At the same time, several plant turnarounds planned for now and later in the year should help keep supply snug. Currently, Shell Chemical has taken a three-week turnaround at its 840-million pound Deer Park, Tex. monomer facility. The plant is due back on line in early November.

Specialties No Cure

Continued from Page 7

productive capacity, Mr. Doscher says. However, restructuring should not be based only on a policy of closing plants but on a "scrap and build," program instead.

Companies need to work together more in the research and innovation areas. At the moment they were all busily paddling their own canoes into the future, Mr. Doscher says.

"European companies need to be acutely aware of who is doing what in terms of innovation, so that we don't duplicate each other's work and then find the research process leading us into building plants which the global market does not need," he says.

Douglas Rodger, a chemicals specialist at management consultants McKinsey & Co. also warned the CMRA members of the dangers of switching into specialties in an effort to improve profitability.

Diversification through acquisition, for example, has many pitfalls. The purchaser can pay so high a price that it can never recover the premium. "Many of the price-earnings multiples for US speciality companies are ludicrously high in relation to the prospects for their businesses," Mr. Rodger says.

The acquiring company also runs the risk of making a new subsidiary adapt to the parent's way of doing things, however inappropriate that may be.

"A classic example of this was the Gulf Chemicals acquisition of Harshaw Chemicals and Millmaster Onyx, companies which were eventually sold again," Mr. Rodger explains.

"The main reason why you are likely to make a mess of a newly-acquired specialities business is the enormous organizational, cultural and business differences between a large, commodity-oriented chemicals company and a much smaller speciality company."

COMMODITIES MATURE MARKETS

The commodity company has a formal rigid structure geared to operating in mature markets. It is inclined not to take risks, making careful decisions backed by all departments.

"By contrast, a speciality operation requires an informal and flexible structure," he says. "Its success depends on its capability to act in an entrepreneurial manner and to take calculated risks. The whole culture of the organization has to favour individual action and fast response."

"In bulk chemicals and plastics, a supplier is pretty well forced to follow a low-cost strategy and the main decision is whether to do this on a broad front or to concentrate on particular market segments," Mr. Rodger says.

Tony Church, an investment analyst with Merrill Lynch Europe, said that in the long term, innovation is the key to the future growth of the European chemical industry, but not just in technical areas.

"Technical innovation without marketing innovation appears to be providing only half the ingredients of success," he says.

Chemical companies in Europe have done much over the last few years to reduce costs by closing plants and cutting production costs. But investors tend to give greater importance to short-term factors like the price of oil and exchange rates.

"In general, the potential impact of a falling dollar in weakening the competitive position of Europe in overseas markets outweighs improvements in the cost position because Europe buys its feedstocks in dollars," he explains.

Europe May Draw

Continued from Page 5

own sake, but as a byproduct or coproduct of another manufacturing process."

He expects that propylene demand in Western Europe will maintain an annual average growth rate of 2.9 percent (against 1.6 percent for ethylene) until 1990 when total consumption should reach 7.51 million tons as against 7.16 at present.

Much of the impetus behind the increase in demand comes from a steady rise in consumption of polypropylene which is expected to push up its share of the sector from 37 percent of chemical use to 40 percent by 1990.

At the same time propylene output from steam crackers (at high severity) will decrease from 5.75 million to 5.55 million tons because of a rise in use of propane and ethane feedstocks. At present naphtha accounts for around three-quarters of cracker feedstock.

Much of the shortfall, however, could be met by a rise in propylene from fluidized catalytic crackers (FCCs) used to provide high octane gasoline as Europe moves over to low or unleaded petrol.

REFINERY PROPYLENE RISING

Mr. Browning estimates that propylene supplies from refineries for chemical use will increase by 250,000 tons to 1.25 million tons by 1990. Some of the supply gap could also be filled by a rise in low severity ethylene cracking. Despite temporary increases average net imports are expected to remain at their 1985 level of around 250,000 tons up to 1990.

Luigi Boido, managing director of Norsk Hydro Belgium SA, called for action by Western European governments to curb the flood of nitrogen fertilizers in the region from Eastern Europe and Middle East, Latin America and other parts of the developing world.

Western European fertilizer companies had done much over the last few years to bring down production costs by reducing the energy intake of their plants to make them more competitive. However, it's maintained importers have still been able to undercut prices because their plants have been built more for strategic purposes than the need to make a profit.

"Imports from outside Western Euorpe, at prices that can easily be classified as dumping levels, are creating the basis for a regime of unsustainable low prices all over Western Europe," Mr. Boido says.

"In this situation the problem becomes political. Nobody can in conscience accept that Western European agriculture is supplied by imports, because this would put the key of our own survival in somebody else's hands."

Since 1960 the share of the non-communist industrialized countries of world nitrogen fertilizer production has fallen from 73 percent to 36 percent. In the same period that of the Comecon countries rose from 16 percent to 30 percent and the share of the developing countries from 10 percent to 36 percent.

Global overcapacity has kept prices at a low level since the mid-'70s. This year they plummeted even further as a result of the fall in the oil price and attempts by oil-exporting countries to increase sales of fertilizers to maintain revenues.

Since 1980 Western Europe has reduced its ammonia capacity by around 1 million tons to just under 14 million tons. In an effort to cut energy costs, European companies have also built larger plants. Over 75 percent of West European ammonia capacity is now provided by plants in excess of 200,000 tons.

"Western Europe continues to be a forerunner in lowering energy consumption as it was among the first to feel the shock of the increase in energy costs," Mr. Boido says.

But it's felt further plant closures are needed. He reckons that 15 to 18 percent of Western European plants are over 20 years old and as a result uneconomic in terms of energy consumption.

Explaining the reasoning behind Norsk Hydro's moves to gain a dominant position in the Western European fertilizer market through acquisitions, Mr. Boido says that the Norwegian-based company is assuming that governments will accept that a certain amount of fertilizers have to be produced locally.

"They will understand that the door cannot be opened completely to supplies from outside," he says. "There has to be a balance between local production and imports.

"Our philosophy is based on the belief that someone in Western Europe has to produce fertilizers by the best technological means available."

The company has been buying up plants that are so starved for investment they are in danger of going out of business. At the same time it is building the most technologically advanced plants to face up to the competition

from outside Western Europe.

Dr. Jurgen Frohling of the agrarian economy and ecology department of Bayer AG's agricultural division, expects that more companies will pull out of the crop protection market because of the soaring costs of R&D.

"The development of a modern crop protection product which meets all specifications for effect and compatibility with the environment currently costs more than 100 million Deutsche marks ($53 million) over a period of ten years," he told the ECMRA members.

"Worldwide only a few companies can afford such an expenditure, accompanied by a correspondingly high degree of risk. In recent years many companies active in the crop protection sector have been no longer able to continue their efforts. This process of reorganization and concentration will certainly be extended into the future."

At the same time extra pressure is being put on companies by slow growth rates in some sectors. Dr. Frohling feels for example, that the world pesticides market will not expand over the next four to five years mainly because of agricultural overproduction in Europe and North America which has driven down global crop prices.

Farmers are also much more efficient in their use of agrochemicals which has lowered consumption levels.

"Whereas 10 to 15 years ago, it was standard practice with crop protection products to be applied at between 1,000 to 3,000 grams of active ingredient per hectare, the level today is between 10 to 100 times lower."

Last year, he estimates, the world crop protection market was worth $15,000 million, of which insecticides accounted for 37 percent, fungicides 18 percent and herbicides 44 percent. The US represented 32 percent of the world market, Western Europe 22 percent and the Far East 19 percent.

James Hickey, a consultant at Strategic Analysis, Inc. Europe in Brussels, predicted that sales of speciality adhesives in Western Europe will grow at an annual 5.6 percent until 1990 while the total adhesives market will expand by only 2 percent a year.

Reactive hot metal adhesives will grow by 9 percent annually, polyurethane adhesives by 8 percent, anaerobics and cyanocrylates by 3 percent each and epoxies by only 1 percent.

Sales of reactive hot metal adhesives are rising rapidly mainly because they are suitable for robotization in the automobile industry — the major market for high-performance adhesives. They now have a 2 to 3 percent share of the speciality market, which is likely to increase even further if they can penetrate the aircraft industry.

A big impetus behind the growth of polyurethanes is their use in the direct glazing of car windshields. This year four million cars are being direct glazed in Western Europe. In 1987 the figure is expected to reach six million.

Polyurethanes are replacing epoxy adhesives in some sectors and in the long term could push them out altogether.

The growth of anaerobics depends a lot on the health of the European automobile industry. With Loctite of the US, one of the key players in the Western European market, automotive accounts for 50 percent of European anaerobics turnover.

Like many other speciality adhesives anaerobics are only slowly being accepted by aircraft companies.

"A lot of these high-performance adhesives do not have a history so their producers need to work with industry to get them evaluated," Mr. Hickey explains.

DRUGS & FINE CHEMICALS

Citric Acid Imports Exert Pressure on Domestic Pricing

Citric acid imports are putting pressure on domestic selling prices, US producers of the material complain. So far this year, imports are running 17 percent ahead of last year's record-setting pace, according to the most recent government figures.

About 33.4 million pounds came to the US through August, an amount almost equal to 1984's total for the full year. Through August of last year, slightly less than 29 million pounds had entered the US. Last year's total of 43.1 million pounds was an all-time high, but 1986 imports should exceed 50 million pounds.

The leading exporter to the US, Belgium, has not increased its shipments here, sending about 10.5 million pounds through August of 1986. However, Belgium is the source of Hoffmann-La Roche's material, and that company is considered by many to be the equivalent of a domestic producer, because of its activity and the services it provides.

The next three greatest sources of citric acid imports, though, have significantly increased shipments here. West Germany has sent 7.5 million pounds through August, almost 70 percent more than last year's 4.4 million pounds. The third leading exporter to the US, Israel, has increased its total by more than 90 percent (5 million pounds, up from 3.8 million pounds), and mainland China has more than doubled its US sales, sending 3.1 million pounds to the US, 120 percent more than the 1.4 million pounds it sent through August 1985.

WEST GERMAN CITRIC

Benkiser Inc., the West German source of citric acid, expresses surprise in regard to the great increase from West Germany, and a spokesman insists that some material must be coming to the US from other countries, via West Germany. In any case, the growth indicates that imports continue to carve out a larger share of the US market.

Domestic producers are split concerning China's effect on the market. One producer thinks that China's low pricing (said by several sources to be the lowest-priced citric acid) exerts a definite downward pressure on domestic pricing. Another producer, though, claims that even with China's increasingly active role, it still accounts for only a small percentage of the overall US citric acid market.

Imports are expected to continue increasing, at least in the short term. Producers point out that, despite the dollar's weakening, importers don't want to relinquish their market share. Also, notes one producer, many "local" plants are opening in countries such as Thailand and Turkey. With those markets closed, foreign sources are turning more and more to the US.

Despite the import activity, Pfizer has increased its domestic capacity and its capacity in Ireland. Pfizer notes that most of the increase was in Ireland, and says the domestic increase was done with an eye toward the future. A spokesman says that in the long-term, imports will eventually stabilize. In the meantime, imports are expected to continue increasing.

Domestic list pricing remains the same as at the beginning of 1986. Pfizer's list price is 41 cents per pound, 33 cents West of the Rockies Miles Laboratories' list price is 81 cents for all the US. Spokesmen will not divulge selling prices, but acknowledge the pressure from imports.

One spokesman claims that imports generally cost between 3 and 8 cents per pound less than his company's product. A source of Chinese citric acid says his company's list and selling price is 73½ cents per pound.

US producers have not been as fortunate in their exporting endeavors as their foreign counterparts. Exports through August fell to 4.4 million pounds, down from 8.7 million pounds through August 1985. Exports to Japan fell to 1.4 million pounds from 4.04 million pounds, and exports to Australia decreased to 1.65 million pounds. Japan and Australia are the US's largest export markets.

One producer says the export market is weak because European price competition is "intense." He adds that Europe has long had the advantage in the world market, because it became involved in citric acid much earlier than the US. As far as Japan is concerned, he claims that China has been supplying much of its material, as part of an effort to increase business dealings between the two countries.

A rumor that Cargill was planning to enter the citric acid business remains a rumor. The company opened a high fructose corn syrup plant this year in Eddyville, Iowa, and citric acid sources say Cargill may start producing citric acid at that facility. Cargill declines comment.

Sodium citrate, the salt of citric acid, has also seen an increase in imports—4.3 million pounds through August, compared to 2.1 million pounds through August, 1985. Pricing is said to be soft.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP

Ascorbic Acid, $1 per kilo
Caffeine, $1 per lb.
Niacin USP, 50c. per kilogram
Niacinamide USP, 50c. per kilogram
Pyridoxine HCL, $3 per kilo

CHANGES/DOWN

None

DRUGS INDEX

The Drugs & Fine Chemicals index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	211.16
Oct. 17, 1986	211.16
Sept. 26, 1986	211.16
Oct. 25, 1985	211.16

Chemical Prices Start on Page 40

CAFFEINE — Knoll Fine Chemicals is raising the price of its synthetic caffeine, effective November 1.

Twenty-thousand-pound shipments will cost $5.80 per pound, up from $4.80 per pound. The following prices will also become effective November 1: $5.85 per pound for 10,000 pound shipments; $5.90 per pound on 1,000 pounds basis; and $5.95 per pound for less than 1,000 pounds.

Knoll, which imports its caffeine from West Germany, attributes the increases to the soft US dollar. Other suppliers of caffeine note that tight supplies have had a firming effect on the market (CMR, 10/6/86, pg. 23). Major reasons for the tightness are increased demand and the Brazilian drought.

Also concerning caffeine, the National Cancer Institute recently concluded that there is no association between coffee drinking and the painful breast condition known as fibrocystic breast disease (FBD).

Years ago, Ohio State University researchers alleged a connection between FBD and consumption of methylxanthines (which include caffeine). Questions about the validity of that theory arose; leading to the NCI study. NCI examined about 3,300 women, and found "no evidence of an association between methylxanthine consumption and benign breast disease (another name for fibrocystic breast disease)."

The researchers also wrote that their results are consistent with "those of several epidemiologic studies undertaken to address this issue, as well as with results from laboratory studies which have measured physiologic responses to caffeine consumption."

Methylxanthines are a group of chemicals

DRUGS & FINE CHEMS

(caffeine, theophylline and theobromine) found in coffee, tea, some colas and chocolate, and often added to respiratory and pain medications.

ENZYMES — Novo Laboratories, Inc., will be raising its contract prices for enzymes used in starch processing, effective January 1.

The new contract bulk truckload prices will be "AMG 200L" (glucoamylase), $3.50 per liter; "Dextrozyme 225/75," (glucoamylase - pullulanase mixture), $5.85 per liter; and "Termamyl 120L" (alpha amylase), $1.75 per pound.

Also, contract prices for fuel ethanol grades of these enzymes will be raised for bulk truckload quantities: "Spirizyme 200L" (glucoamylase), $3 per liter; "Liquozyme 120L" (alpha amylase), $1.65 per pound; and "Liquozyme 60L" (alpha amylase), 85c. per pound.

Spot prices for the above enzymes will be 6 to 8 percent higher than the contract prices.

Prices for truckload quantities of drums are 5c. per pound and 10c. per liter higher. Terms are net 30 days, f.o.b. Frankinton, N.C., freight equalized.

According to a spokesman, these increases are needed to obtain "acceptable" profit margins, following a three-year depression.

PHARMACEUTICALS — India's production of pharmaceuticals has jumped 20 percent during the last year, says Satish Shah, president of Aakash Corporation. Other observers agree that India is making its presence felt in both the US and the rest of the world.

Mr. Shah also includes fine chemicals, dyes and intermediates in his growth estimation. "Bombay is on the ocean and has new piers made for higher efficiency in loading and unloading ships," he says. He continues that with the US dollar's weakness, companies are looking toward the third world for less costly material.

One reason for lower costs is said to be India's relatively cheap labor. For example, Mr. Shah estimates that a chemist who makes $30,000 a year in the US would earn $8,000 a year in India. Likewise, factory workers who earn $20,000 a year in the US could expect to earn $2,800 a year if they worked in India.

Mr. Shah adds that Prime Minister Rajiv Gandhi's policy of "opening up" trade relations has helped India carve out a larger share of the worldwide chemical market. Among these "openings" is a widespread reduction of import tariffs.

Acetaminophen, iodine and penicillin are exmaples of chemicals in which India has become more active recently. In particular, India is sending more penicillin to the US. Psyillum seed husk, a product which comes to the US exclusively from India, is coming here in dwindling amounts in 1986.

J&J Arthritis Drug Discontinued in UK

Johnson & Johnson says it is discontinuing sales of the arthritis drug "Suprol" in the United Kingdom, but its McNeil Pharmaceutical division will still market the widely used prescription painkiller in the US.

"This decision has been made on commercial grounds," the company's Ortho-Clag subsidiary said in letters to physicians and drug regulatory authorities in the UK. The company attributed its decision to poor sales volume in the UK market.

Johnson & Johnson, which does not disclose figures on sales and users, said it continues to believe that "Suprol" is a safe and effective drug in the hands of physicians with proper prescribing information.

Public Citizen Health Research Group charged in September that "Suprol" had caused kidney damage in hundreds of users.

Drug Export Action

Continued from Page 3

against manufacturers, and current Federal law provides no source of compensation.

Faced with costly damage awards, manufacturers have raised prices of some vaccines by 500 percent in the past two years. Since 1984, the number of companies licensed to make vaccines has dropped from 15 to three, creating serious shortages of some products.

According to the bill, any child suffering a known adverse reaction within a certain time after receiving required vaccines against polio, measles, mumps, rubella, diphtheria, tetanus or whooping cough would be automatically eligible for compensation by petitioning the Federal courts.

But in a letter to Sen. Orrin Hatch,(R-Utah), the Senate sponsor of the omnibus health package, the Justice Department said it would recommend a veto because the vaccine provision would create "a major new entitlement program for which no legitimate national need has been demonstrated."

Department of Health and Human Services also strongly opposes the vaccine measure, but HHS supports the pharmaceutical export amendments as well as most other components of the package.

The drug export provision, proposed in 1985 by Sens. Hatch and Edward Kennedy (D-Mass.) would allow US companies to export drugs to countries that have well-developed procedures for the approval of pharmaceuticals.

US pharmaceutical houses whose products are approved in foreign countries earlier than in the US are prevented by law from supplying those foreign markets from their plants in the US.

They are forced to either build plants abroad or license out their products, and valuable American technology, to foreign manufacturers. As a result, the industry argues the US economy is deprived of investments, jobs and exports.

Lifting the ban on drug exports, according to a PMA analysis, could create 8,000 to 10,000 additional jobs and $400 million to $500 million additional exports in five years.

Sen. Hatch said the "landmark legislation" would help "in improving the competitive position" of US pharmaceutical companies in overseas markets.

Mr. Mossinghoff credited Sen. Hatch, the chairman of the Senate Labor and Human Resources Committee, with gaining congressional approval of the drug industry's top legislative priority.

"Without chairman Hatch's persistence and political acumen, this bill never would have been brought up on the Senate floor," says the PMA president. "He pushed it over the top."

A PMA spokeswoman says the organization does not have a position on the vaccine measure because its member companies are split on the issue, but the industry strongly supports the overall drug package.

Waste Rule for Military

Continued from Page 4

water standards, but had not installed appropriate groundwater monitoring wells to gauge the extent of the problem because this site would be exempt from federal or state standards under the proposed rule," Rep. Synar says.

"We also found that one contractor at the Hanford reservation in Washington State used the proposed rule to classify every single liquid waste stream at the Hanford Reservation as byproduct, which the proposed rule would exempt from federal and state hazardous waste regulations," he adds.

Rep. Synar notes that DOE's proposed rule was opposed by every single one of the 32 agencies, organizations and individuals who commented on it.

"The Nuclear Regulatory Commission said that the proposed rule probably was illegal and warned that it could wreak havoc with many of the Commission's regulatory programs for the private sector. Environmental Protection Agency also opposed the rule. Frankly, in the face of all this opposition, I don't know why DOE hasn't withdrawn the rule. Instead they've been 'reviewing' it since last March," Rep. Synar says.

RULE WOULD EXEMPT DOE

In effect, the proposed rule would exempt DOE mixed waste from the Resource, Conservation and Recovery Act (RCRA) and state hazardous waste laws on the basis of how the waste is produced and irrespective of whether the waste contains chemically hazardous components.

The rule would accomplish this by defining as "Byproduct Material" all of DOE direct process wastes. RCRA exempts Byproduct Material from its requirements.

NRC has interpreted Byproduct Material to include only radioactive materials. But DOE's proposed rule attempts to "clarify" the term Byproduct Material so that it applies to nonradioactive hazardous as well as radioactive components of mixed waste.

Under the rule, there could be two DOE mixed waste streams with identical chemical and radioactive properties, but because of how they were produced, one could be classified as mixed waste and subject to RCRA, the other could be classified as Byproduct Material and exempt from RCRA.

In their letter, the 70 legislators ask Mr. Herrington to withdraw the rule and, in its place, issue immediate policy guidance that brings DOE into line with what NRC and EPA are doing for the private sector.

NRC and EPA have decided to address both the chemical as well as radioactive hazards of mixed waste and they have taken the position that any mixed waste that contains chemically hazardous components that should be subject to RCRA and state laws, are to be subject to RCRA and state laws.

"Congress clearly intended RCRA's regulatory scheme to be comprehensive and to apply to federal facilities in the same manner, and to the same extent, as the private sector," the 70 members told Mr. Herrington. DOE's proposed rule "thwarts the intent of RCRA," they say.

Allied-Signal

Continued from Page 9

for the third 1986 quarter were up 49 percent to $22.9 million from $15.4 million, noted Edwin E. Tuttle, Pennwalt's chairman and CEO.

Most of the improvement is attributed to the Chemicals & Natural Resources Group, which posted an 80 percent increase in earnings from $14.7 million to $26.7 million.

GAF's third-quarter income before extraordinary credits reached $24.5 million, as compared with $15.6 million a year ago, an increase of 57 percent.

This was the eleventh consecutive quarter of increased earnings, comments Samuel J. Heyman, chairman and CEO. Operating profits increased 26 percent to $29.3 million from $31.1 million, Mr. Heyman notes.

Witco reported record net income for the third quarter and for the first nine months. Income in the quarter amounted to $17,208,000, an increase of 8 percent over $15,948,000 a year ago.

William Wishnick, Witco's chairman, said the income growth was mainly attributable to capital improvements which have resulted in more efficeint production process. Also cited were lower costs of raw materials.

Superfund Bill

Continued from Page 3

tion or failure to clean up toxic wastes," remarked Leslie Dach, a representative of the National Audubon Society.

Chemical Manufacturers Association, which called the bill an "acceptable compromise" that will "strengthen and extend" the national cleanup program, said it was pleased the President decided to approve the measure so EPA can resume full-scale cleanup activities.

Here are the highlights of the new superfund law signed by President Reagan October 17.

Money — Authorizes spending $8.5 billion for waste dump cleanup activities over five years. This is up considerably from the $1.6 billion budgeted for the program's first five years and $3.2 billion more than sought by the administration.

On top of the $8.5 billion is $500 million for a new program to clean up leaking underground storage tanks, a growing environmental concern because of the danger they pose to drinking water sources.

BROADER TAXATION

Who Pays? — During superfund's first five years, the petrochemical and petroleum industries paid $1.4 billion in taxes. The new law spreads the burden by creating a broad-based tax on manufacturers with $2 million or more in annual profits. This provision, strongly opposed by the President, is expected to generate $2.5 billion over five years.

Under the new tax structure, oil companies will pay $2.75 billion; petrochemical feedstock producers $1.4 billion; and the Treasury Department will contribute $1.25 billion in general revenues.

The remaining $600 million will come from interest on superfund monies and cleanup costs assessed against companies responsible for the waste in a particular dump. The leaking underground tank program will be financed by a .13 cent-a-gallon tax on motor fuels.

In addition to the $1.4 billion feedstock tax, the chemical industry will pay 20 percent of the petroleum tax, or $550 million, and $250 million of the broad-based tax for a total of $2.2 billion.

To the relief of all superfund taxpayers who had feared the tax might be imposed retroactively, the bill provides for the tax to become effective January 1, 1987.

Schedules — EPA will be required to begin cleanup work at a minimum of 375 of the nation's worst toxic waste sites in the next five years. The agency must also draft cleanup plans for between 275 and 650 sites during the same period.

The bill gives EPA four years to evaluate the 20,000 or more dumps in the national inventory to determine which ones should be added to the National Priority List, making them eligible for cleanups under superfund. There are now some 900 sites on the list or proposed for listing.

Cleanup Standards — The bill requires superfund cleanups to render sites to minimum health standards set by a variety of Federal environmental laws covering the quality of air and water and disposal of toxic substances.

This is a response to criticism that some superfund cleanups created worse problems and in some cases merely shifted waste from one leaking site to another.

EPA can waive the standards only in instances where following them would be technologically impractical or could cause greater harm to the environment. In states that have tougher standards than those contained in the Federal law, the state standards will apply.

A review of cleaned-up dumps must be conducted every five years to ensure that waste materials are not escaping. The legislation mandates that EPA use permanent treatment techniques when feasible.

Right-To-Know — In a response to the Bhopal, India toxic gas leak tragedy of 1984 and chemical leaks in the US, the bill requires large chemical manufacturers and users to

file public reports about daily emissions of hazardous and toxic substances from their plants during routine manufacturing.

The law also calls for comprehensive emergency planning and response procedures to be used following an accidental release. The provisions allow for trade secret protection, and for citizen suits and penalties to enforce the requirements.

Chemical industry spokesmen say the right-to-know requirements are expensive and burdensome, and EPA says they will be difficult to administer.

Settlements — Congress rejected efforts to soften the 1980 superfund law's strict liability scheme, which makes any company that contributed to a waste site potentially responsible for the entire cleanup cost.

Language was added to encourage responsible parties to settle claims brought by EPA. The new law also creates a Federal statute-of-limitation standard designed to make it more difficult for companies to use restrictive state damage laws to avoid lawsuits by citizens who claim injury due to toxic substance exposure.

Federal Facilities — The law seeks to close a big gap in the original law: its lack of application to toxic wastes produced by Federal activities, principally those of the Defgense and Energy Departments.

For the first time, Federal sites will come under the same requirements as private chemical and radioactive dumps. There are about four dozen Federal sites on the EPA priority list.

Norsk Hydro

Continued from Page 9

capacity of 60,000 tons of magnesium. The new plant will make Norsk Hydro, which already accounts for 25 percent of world production, the leading magnesium producer in the world. The site selected allows possible expansions in the future. Magnesium produced at Becancour will be sold in North America and overseas markets.

Norsk Hydro intends, in its purchasing, to use local suppliers whenever they are competitive. As a result, the company expects that a large part of its equipment and services will come from Canadian sources.

Magnesium oxide, containing raw materials, will be brought to the plant by sea and rail. The final decision on the source of raw materials has not been made.

Norsk Hydro also announced that it has concluded a 25-year agreement with Hydro-Quebec for supplies of hydroelectric power. The contract provides for additional power in the event the plant's magnesium production capacity will be expanded.

The federal and provincial authorities are in favor of Norsk Hydro's plans to build a magnesium plant in Canada, and have given assistance during the planning stages.

The plant will be owned by Norsk Hydro Canada Inc., a company in the process of being formed. It will be established in Quebec as a wholly-owned subsidiary of Norsk Hydro.

Damon Biotech

Continued from Page 4

tech's t-PA have been very encouraging, and pre-clinical trials are now underway.

Robert P. Schneider, president and chief operating officer of Damon Biotech stated "We are very excited by the progress of our t-PA activities so far. Although it is by no means certain that we will be able to conclude such an arrangement, joining forces with a major pharmaceutical company with respect to our t-PA activities would be a very significant event for the company and a milestone in its financial and business development."

Damon Biotech, a majority-owned subsidiary of Damon Corporation develops manufactures and markets biomedical products through the application of its proprietary technologies — the cellular enhance technology and the "Encapcel" system. The company is a leading contract supplier of monoclonal antibodies to the health-care industry.

Carbon Black Makers Face A Second Round of Oil Hikes

Producers of carbon black faced a round of carbon black oil (CBO) price increases this month, which raised barrel prices from \$9.50 to \$11 per barrel; now, they are bracing themselves for additional \$1.50-per-barrel hikes set for mid November. So far Exxon, a major supplier of the oil feedstock, has announced CBO increases effective November 13th. Other producers are reported to have announced similar increases.

Prices for crude oil, specifically, for No. 6 fuel oil, to which CBO is closely linked, have increased to \$15 per barrel; recent OPEC developments are expected to boost prices further by the end of the quarter. Although the new CBO price hike may be withdrawn, pigment producers feel that crude oil values are definitely firming; with each \$1-per-barrel increase resulting in a 0.5 cents per pound rise in production costs, the effect on margins will be considerable in what is already a depressed market.

Prices for the colorant have fallen a total of 6 cents per pound since January; they were last cut by a penny per pound in late July, when CBO prices plummeted to a record low of \$9.50 per barrel. The oil was sold for \$21.50 per barrel last December.

Current selling prices for J.M. Huber Corporation's N-500, N-299 and N-700 grades are still given as 21.25 cents per pound, 24 cents per pound and 21 cents per pound, respectively. Equivalent product lines of other producers are said to be similarly priced.

SOFT DOMESTIC DEMAND

Domestic demand, which began to suffer with the start of automobile and tire downsizing in the early 1980's, was dealt a serious blow in 1984, when carbon black exports from Canada and Mexico shot up 50 percent, and the US became a net importer of the pigment.

Since that time, finished tires and rubber and plastic imports, especially from the Far East, have further depressed demand, which fell by 11 percent last year.

This year, producers have been encouraged by a better domestic trade balance. Both Canada and Mexico, which together account for over 90 percent of all carbon black imports, exported less to the US. Where domestic imports exceeded exports by 81 million pounds in 1984 and 74 million pounds last year, the figure will fall to between 45 and 50 million pounds this year, producers say, reopening an additional 24 to 30 million pounds of the US market to domestic producers.

Through July, imports fell by almost 30 percent overall. Canadian exports to the US were down 21 percent, mostly because of a summer strike at one of Cabot Corporation's plants. Exports from Mexico fell by 11 percent over that same period, as government-controlled CBO prices were raised. Mexican producers had long benefitted from nominal raw material costs; although these are still lower than "world" prices, one producer says the increases have definitely brought prices for Mexican material more in line with those of other world producers, blunting its competitive edge in the US carbon black market.

With rising raw material costs and still fairly soft US demand, producers hope this drop in imports signals a return to domestically-produced pigment; so far, however, they report that any relief in this segment of the market has been more than offset by increased imports of finished rubber products. The number of finished tire imports has increased substantially over last year's figure. Some expect US demand to fall an additional 5 percent this year.

Overcapacity continues to dominate the industry; producers describe current capacity utilization rates as being close to Summer's levels, or between 75 percent and 80 percent of a total nameplate of 3.2 billion pounds per year. The industry went through considerable restructuring earlier this year, when Phillips, a major producer, left the market.

PLASTICS ADDITIVES

PHTHALATE PLASTICIZERS — Producers and other market watchers question the unusually high phthalate plasticizers export figure which the government reported for August. Bureau of Census trade statistics for the month showed exports totalling 34.4

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PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP
None

CHANGES/DOWN
None

COATINGS INDEX

The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	306.4
Oct. 17, 1986	306.4
Sept. 26, 1986	306.4
Oct. 25, 1985	306.4

Chemical Prices Start on Page 40

COATING & PIGMENT IMPORTS: AUGUST

CENSUS BUREAU REPORTS ON THE TOP PAINT MATERIALS.

		AUGUST 1986 QUANTITY	AUGUST 1986 $ VALUE	JULY 1986 QUANTITY	JULY 1986 $ VALUE
Antimony oxide	lbs.	2,194,411	1,354,735	2,804,117	2,516,844
Carbon black	lbs.	12,725	74,345	10,019,857	2,760,661
Chrome colors:					
Chrome oxide green	lbs.	322,172	336,532	563,016	542,758
Molybdate orange	lbs.	129,829	146,638	202,456	218,447
Yellow	lbs.	434,746	303,371	382,313	264,495
Zinc Yellow	lbs.	152,998	95,179	283,203	174,848
Cobalt Oxide	lbs.	22,046	114,850	1,900	55,795
Cuprous Oxide	lbs.	40,000	35,298	128,184	101,528
Iron blues	lbs.	386,995	474,404	413,800	533,939
Iron oxides, hydroxides, nat'l	lbs	230,106	51,892	82,050	17,765
Synthetic:					
Black	lbs.	146,440	49,421	400,266	117,035
Red	lbs.	2,213,735	310,494	1,049,626	263,097
Yellow	lbs.	1,790,855	418,775	3,067,990	691,966
NSPF	lbs.	912,479	1,443,568	1,650,414	1,034,651
Litharge	lbs.	2,818,416	554,254	2,835,478	545,022
Red Lead	lbs.	243,000	52,921	94,000	21,128
Shellacs, bleached	lbs.	160,415	366,497	123,265	334,083
Stick buttonlac, other lacs	lbs.	114,118	200,766	171,969	249,534
Seed lac	lbs.	747,749	679,457	290,384	265,844
Titanium dioxide	lbs.	85,222,520	21,726,215	36,542,570	21,275,249
Ultramarine blues	lbs.	681,616	665,037	676,717	663,164
White lead, basic carbonate	lbs.	3,912	2,134	N/A	N/A
Zinc Oxide (lead free)	lbs.	8,677,868	2,651,686	11,068,609	3,466,665

HEAVY & AG CHEMICALS

Peroxide Makers

Continued from Page 3

tree regeneration rate much higher than in Canada. Growth estimates for the pulp and paper industry vary, but overall, 1987 growth is estimated to be between 8 and 10 percent, with the Canadian market expanding as much as 15 percent.

One producer notes that 1988 growth may not be quite as spectacular since no new pulp mill construction is expected that year.

Following pulp and paper, environmental applications are looked to next as filling the imminent supply/demand gap. Companies like Degussa and Interox say their experience in Europe gives them a clue to where the US environmental market is going.

Probably the most talked-about application is bioreclamation (CMR, 8/4/86, pg. 3). The field is new and fairly broad, but in general refers to the in situ generation of oxygen to enhance normal biological processes. The most promising bioreclamation application seems to be in cleaning up underground organic chemical contamination from leaking storage tanks.

Less esoteric environmental applications are also promising. Degussa notes that in Europe peroxide has commercial use in the treatment of waste air such as SO_2 and NO_x. While current EPA emphasis seems to be on waste water treatment, Degussa expects activity in air treatment to pick up in the future.

WASTE STREAM "POLISHING"

A waste water treatment area that producers expect to grow is in waste stream "polishing," where an effluent stream cleaned by traditional methods is given a final treatment with peroxide to bring it up to proper specifications. Overall, stronger environmental legislation on the Federal, state and local levels is expected to create a real need for more complete wastewater treatment.

Peroxide use in uranium mining has been on the wane for many years, victim of nuclear energy's woes. Producers say that gold mining, however, is a prospective new market. Most gold is extracted through a leaching process involving sodium cyanide. In some mining areas, cyanide-contaminated solutions can be collected in ponds and allowed to slowly oxidize. In other areas, though, groundwater contamination is a real problem, and a faster cyanide destruction method, such as oxidation with peroxide, is necessary.

The gold mining business has been spurred lately by rising gold prices. Degussa, which considers itself the leader in this field, expects five million pounds of peroxide to be used in this application next year, up from practically nothing this year.

An area that, according to one producer, could create over 30 million pounds per year of peroxide demand, is in the detergent field. Market sources say that major home laundry detergent makers such as Proctor & Gamble and Unilever are test marketing detergents containing peroxygen bleaches, the most prominent bleach being sodium perborate monohydrate.

One observer says it takes approximately 25 pounds of hydrogen peroxide to make 100 pounds of sodium perborate. Du Pont is the only US producer of sodium perborate, in a tetrahydrate form. Degussa and Interox both make the monohydrate overseas.

Initial indications are that the detergent test marketing is quite successful, and peroxide producers expect a commercial entry in the not too distant future. Sources say that if the commercial laundry product was successful, most peroxide makers would begin production of sodium perborate or other peroxides in the US. Du Pont, it is felt, would initially have the upper hand as conversion from the tetrahydrate to the monohydrate perborate is relatively straightforward.

Looking further down the road, peroxide has a potentially vast market in the treatment of waste cellulose. Scientists at the University of Illinois are working with peroxide on ways to convert normally discarded agricultural byproducts such as wheat straw and corn cobs into feed that is digestable by ruminant animals.

US Department of Agriculture estimates that a 1 percent penetration by cellulosic waste material into the animal feed market would consume 27 million pounds of peroxide; a 5 percent penetration would consume over 200 million pounds. The technology to make this use commercially viable has not been fully demonstrated, however.

A small but quickly growing market for hydrogen perioxide is in asceptic packaging. One producer puts its current size at two to three million pounds per year and estimates annual growth of over 30 percent.

Milk and juices packaged in foil-lined paper containers are increasing in consumer popularity and peroxide is used to sterilize the package's foil surface. Traditional sterilization methods are out because of the paper's flammability.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP

None

CHANGES/DOWN

None

HEAVY & AG INDEX

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Oct. 24, 1986	113.69
Oct. 17, 1986	113.69
Sept. 26, 1986	113.69
Oct. 25, 1985	113.69

Chemical Prices Start on Page 40

BASES & SALTS

SODIUM BISULFATE — Jones-Hamilton Company, of Newark, Calif., notes that it has changed its price structure for sodium bisulfate.

The changes were effective October 1. Sodium bisulfate in drums now costs $15 per hundredweight, up from $13 per hundredweight. The East Coast price remains $13 per hundredweight. Additionally, the bulk price is now $185 per ton in the West, up from $175 per ton. The East Coast price remains $175 per ton.

SODIUM CYANIDE — E.I. du Pont de Nemours & Co. changed its price structure for "Cyanogran" and "Cyanobrik" sodium cyanide, effective October 15. Th former product is in granular form, while the latter is in briquette form.

The new price for both products is 71c. per pound, delivered. The price was previously 68c. per pound, f.o.b. plant.

INORGANIC CHEMICAL OUTPUT: JULY

SELECTED FIGURES IN SHORT TONS FROM THE CENSUS BUREAU.

	JULY '86	JUNE '86	JULY '85
Aluminum sulfate, commercial	112,604	106,463	89,201
Calcium carbide, commercial	17,101	16,113	21,197
Calcium phosphate, dibasic anhyd.	43,671	44,282	59,506
Caustic soda, dry	17,102	15,591	19,353
Caustic soda, liquid	943,081	946,138	942,535
Chlorine, gas	906,624	896,958	904,694
Chlorine, liquid	712,852	705,899	523,583
Hydrochloric acid	279,600	274,602	236,661
Hydrofluoric acid	16,330	15,137	16,572
Hydrogen peroxide	10,703	11,484	13,227
Phosphorus, elemental	29,770	27,850	29,123
Phosphorus oxychloride	2,371	2,111	2,799
Phosphorus pentasulfide	6,408	6,165	7,091
Phosphorus trichloride	7,933	8,126	8,106
Potassium hydroxide, liquid	—	—	16,264
Potassium pyrophosphate, anhyd.	1,693	1,938	1,465
Sodium chlorate	20,258	21,090	20,916
Sodium metal	—	—	5,778
Sodium sulfate, anhyd	62,061	69,256	64,651

FERTILIZER MATERIAL

FISH MEAL — Production of fish meal in the leading exporting countries is up by 7 percent in 1986 compared to 1985, according to International Association of Fish Meal Manufacturers (IAFMM), which recently held its annual conference, in Lisbon.

Manufacturers estimate 1986 production at 3.05 million tons, up from last year's 2.85 million tons. This is largely because of increased South American production.

Despite greater production, stocks are estimated to be 260,000 tons, down from 450,000 tons at the beginning of the year. A spokesman for Chile, the world's largest exporter of fish meal, says only 5 to 10 percent of his country's quarterly stocks were unsold, compared to the usual total of 30 to 50 percent. He adds that recent price increases reflect the stock situation. A trade source agrees that the market is firm. Menhaden fish meal costs between $310 and $320 per short ton, while Gulf Port fish meal is between $315 and $320 per short ton. The Chilean material is $335 per short ton, f.o.b. plants.

Exports from the main producing countries are up 10 percent, according to Fish Meal Exporters Organization. The organization estimates exports to be 2.85 million tons, up from 1985's 2.6 million tons. Last year's export total, in turn, was 25 percent higher than 1984's total. Exports to the US, though, are about the same as in 1985.

COATINGS & PLASTICS

Continued from Page 29

million pounds, valued at $3.6 million dollars, or about 11c. per pound, while list prices for linear and cyclic phthalate plasticizers such as DIDP and DINP are well over 50c. per pound. Shipments of these plasticizers rarely exceed 500 tons per month, and many conclude that some classification error was involved.

One analyst traces the source of this error to a listing of one shipment of 28.9 million pounds to France at a value of $948,081, or 3c. per pound, clearly an impossibility. He speculates that the figure may have included other esters or related compounds. Without it, a total export volume for August of 5.5 million pounds at $2.6 million, or around 50c. per pound, seems reasonable.

Producers report that the 2c. per pound October price increase has been holding.

Selling prices, once 20 to 30 percent below list, are now approaching list values, producers say. High raw material costs should continue to pressure margins, however. Supplies of 2-ethyl hexanol (2EH) are still extremely tight. So far, Union Carbide Corporation is the only US producer to have boosted butyraldehyde production, and this primarily for n-butanol, rather than 2EH, production.

Similarly, phthalic anhydride and trimellitic anhydride supplies are expected to remain tight.

PLASTICS MATERIALS

PHENOLIC RESINS — Producers report that phenolic resin price increases set for October 15th and 24th were "rescinded almost as soon as they were announced," as makers of phenol were unable to realize 2c.-per-pound hikes planned for October 1.

Phenol producers in turn blamed phenolic resin makers, who account for almost half of their total customer volume, for the failure of the raw material price increase. Of the four leading US producers of resin, only Borden Chemical Company and Reichhold Chemical Company raised prices for their phenolic resin product lines when phenol cost increases were announced.

This year, all attempts to raise prices for both phenol and phenolic resins have failed. Prices for the aromatic plunged with crude oil early in the year, and resin prices followed suit. Despite fairly strong demand in construction-related markets, selling prices for the resin slipped by around 10 percent this year.

At least one producer of resin feels that the increase "is still justified" in light of price erosion and strong demand, as well as higher production costs; expenses have risen in excess of raw material savings, he says, and margins have been squeezed this year.

POLYSTYRENE — Other producers of polystyrene are still deciding whether or not to follow American Petrofina's lead in raising prices for the polymer.

Makers of the resin are unanimous in describing October's increase as successful in light of strong demand and high capacity utilization rates.

Although most feel that the new monomer increases will warrant a second increase, one producer questioned whether Petrofina's move was an actual increase or a restatement of October's incresae to contract customers.

Petrofina maintains that this is a second increase; the firm claims to have seen every penny of the October increase, and will need higher prices in order to cope with higher monomer costs.

Producers report that this is a difficult time to adjust prices; if a second round of polystyrene increases does come about, the quarter will be a more feasible time, they say.

MISCELLANEOUS

METAL DRIERS — Nuodex Inc. will be reducing list and selling prices for its "Katra" synthetic metal driers and "Nuodex" napthenate driers, effective October 17th

Polyethylene Unit for Taiwan Will Use the Carbide Process

USI Far East Corporation will build a new polyethylene plant at Kaohsiung, Taiwan, using Union Carbide Corporation's gas-phase "Unipol" process.

According to USI Far East chairman Antonio T. Chong, the planned new 120,000 metric-tons-per-year facility will be capable of producing a wide variety of linear low-density polyethylene resins for film and other markets.

Construction is slated to get underway early next year and the plant is scheduled to be completed and in operation by mid-1989. "Completion of the new plant, which will be the first Southeast Asian LLDPE plant, will cap a facilities expansion and modernization program begun in 1983 and aimed at bolstering our position as Southeast Asia's leading producer of polyethylene," Mr. Chong pointed out.

According to Mr. Chong, the process advantages include reduced investment and operating costs, compressed construction timetables, and "a unique ability to satisfy the specific product needs of our market."

USI Far East Corporation was first established in 1965. During the last twenty-one years of operation, USI Far East has grown in cooperation with the development of China Petroleum Corporation's first, second, third and fourth naphtha crackers.

Currently, USI Far East is operating three high-pressure low-density polyethylene and two high-density polyethylene lines. Low-density polyethylene annual capacity measures 140,000 metric tons and annual capacity for high-density measures another 80,000 metric tons. Upon completion of the proposed expansion, total annual polyethylene capacity is estimated to reach 340,000 metric tons. Product offering at that time will include low-density polyethylene, high-density polyethylene and linear low-density polyethylene.

Enzon Seeks Okay

Enzon, Inc., South Plainfield, N.J., has filed with Food & Drug Administration for approval to begin human trials using two of the company's modified enzymes — PEG-superoxide dismutase (PEG-SOD) and PEG-catalase (PEG-CAT). The substances are intended for use in treating disorders resulting from oxygen toxicity, which often causes fatal damage to tissues after burns, kidney transplants and heart attacks.

Senate Shifts

Continued from Page 5

tee would occur at the subcommittee level, where Sen. Howard Metzenbaum (D-Ohio) is the second ranking Democrat behind Sen. Patrick Leahy (D-Vt.) on the patents and trademarks panel. Sen. Metzenbaum, who is a staunch opponent of patent extension, would be in a better position to block attempts by the National Agricultural Chemicals Association to move patent term restoration legislation.

Sen. Mathias, the retiring chairman of the patents subcommittee, sponsored patent legislation for NACA in each of the last two Congresses, and helped win Senate approval this year.

At the Agriculture Committee, which has jurisdiction over the Federal Insecticide, Fungicide & Rodenticide Act, it is uncertain whether Sen. Jesse Helms (R-N.C.) would retain the chairmanship or take over the Foreign Relations Committee, where he has seniority over Sen. Richard Lugar (R-Ind.).

Should Sen. Helms move to the Foreign Relations chair, Sen. Lugar would take over at Agriculture — a switch that would cause little consternation among major agrichemical companies since both senators sided with the chemical industry on most FIFRA issues during the debate this year.

It's also unclear who would chair the committee if the Democrats win control of the Senate. Sen. Leahy has the most seniority, but he has taken a back seat to Sen. Edward Zorinsky (D-Neb.) to serve as vice-chairman of the Select Intelligence Committee.

LEAHY TO AGRICULTURE?

But with his term on the intelligence committee up, Sen. Leahy could take over at Agriculture — an unwelcome prospect for the chemical industry. While Sen. Zorinsky successfully added patent extension provisions to the committee's FIFRA bill this year, Sen. Leahy fought to toughen groundwater and liability requirements on the industry.

At the Environment & Public Works Committee, a Democratic victory would put Sen. Lloyd Bentsen (D-Tex.) in line for the top spot. But Sen. Bentsen, a strong advocate for the oil and petrochemical industries, would instead choose to chair the powerful Finance Committee.

Sen. Quentin Burdick (D-N.D.), a low-key lawmaker who has shunned committee chairmanships in the past, is next in line. Since he will be up for re-election in 1988, another such move seems unlikely.

After Sen. Burdick and the retiring Sen. Gary Hart (D-Col.) is Sen. Daniel P. Moynihan (D-N.Y.).

Sen. John Danforth (R-Mo.) would retain his chairmanship of the Commerce, Science and Transportation Committee with a Republican victory, but Sen. Ernest Hollings (D-S.C.), a strong foe of product liability reform, would assume command if the Democrats win.

The senior Democrat at the Energy & Natural Resources Committee is Sen. J. Bennett Johnston (La.), is a strong supporter of the energy industries.

Ozone Shield a Puzzle

Continued from Page 7

thought of," said Ms. Solomon. She said she was "more concerned" than she had been before the expedition began in August, because science has been "unable to come up with an explanation."

But Ms. Solomon said she believes the team's research has eliminated two theories that the ozone depletion is a natural process.

One of those theories proposes that the 11-year solar cycle is responsible, by triggering chemical reactions that have a cumulative effect. This would explain why the Antartic "hole" did not appear before the mid-1970s.

The other postulates that slight changes in wind patterns resulting in an upward movement of air masses could be responsible.

Ms. Solomon said the cause could be a combination of chemical pollution and a variety of natural events, including the seasonal evaporation of stratospheric clouds over the polar region. "It's much more complicated than theories have suggested so far," she said.

The phenomenon is a seasonal event, occuring every Southern Hemisphere Spring, but the depletion has worsened during the past several years.

Scientists are concerned because the thin ozone layer in the stratosphere is the Earth's primary barrier from dangerous amounts of ultra-violet radiation from the sun.

Environmental Protection Agency estimates that each 1 percent decline in ozone at high altitudes may result in 200,000 more skin cancers around the world every year.

Increased ultraviolet sunlight reaching the Earth's surface would also have an adverse impact on plants and marine organisms, scientists say.

Concern about the ozone layer was first raised in 1974 when two University of California scientists discovered that chlorine released from chlorofluorocarbons can destroy ozone molecules.

The gases have since been banned by EPA as aerosol propellants, but they are still widely used as refrigerants and for industrial purposes.

Although the cause of ozone depletion has not been proven, the major US producers of chlorofluorocarbons recently said they would support, if necessary, a global limit on the future rate of growth of fully halogenated CFC production capacity.

The leading producer, E. I. du Pont de Nemours & Co., said it would be willing to back a cap on current production and suggested that safer substitute could be developed within five years.

USX Stock Correction

The 28 percent of its capital stock being purchased by Aristech Corporation, successor to the Chemicals Divison of USX Corporation, will be retired. The speculation in the October 20 CMR story on page 9 that the shares might be made available to management was incorrect.

PERFUMES & FLAVORINGS

Camphor Oil Market Is Firmer As Production, Usage Decline

Camphor oil prices firmed last week, up 10 cents from $2.40 to $2.50 per kilo cost and freight, New York, for Chinese white 35 percent and up 20 cents from $4.90 to $5.10 per kilo for camphor oil 1.070. Formosan white 86/88 spot prices also firmed recently, up 25 cents to over $2 per pound. Industry sources attribute the increases to a decrease in production and the stronger influence of synthetic camphor powder.

Imports of all grades of camphor oil are well below the 1985 pace: 22,915 pounds have been imported to the US from January through August, 1986, as versus a 1985 year-end total of 153,214 pounds.

Because all of the natural camphor oils are byproducts of refining camphor powder from crude camphor, the natural oils market is linked to the success of natural camphor powder. "Without demand for (natural) powder," explains a market analyst, "there would be no production of camphor oil."

Synthetic camphor powder production has been stepped up in 1986 to where it has substantially affected both production of and demand for natural camphor powder. Chinese producers have helped to drive the powder prices down by offering two grades of synthetic camphor powder at competitive prices. Chinese technical grade synthetic camphor powder is quoted at $1.90 per kilo, cost and freight China, and Chinese BP grade is $2.40 per kilo same basis.

"NATURAL CAMPHOR SCARCE"

"Synthetic powder is very inexpensive so natural camphor powder is becoming scarce," says an industry source. An essential oils broker agrees: "The synthetic camphor powder is steadily undermining the natural powder on the market." With a weakened demand for natural material, production has slowed and the quantities of natural camphor oils yielded as byproducts thereby diminished.

Taiwan, the major source for natural camphor oil with 97 percent of total US imports in 1985 and 80 percent of the imports from January through August, 1986, is reportedly cutting back production. "Taiwan isn't collecting the raw materials to make the powder or its byproducts," says another essential oils broker.

The result of less availability and a projected decline in camphor oil production has been firmer pricing. The various grades of white camphor oil are the most widely used and its prices have been the first to be affected.

Yellow camphor, because it's a comparatively small item of no more than a few tons imported annually, has remained steady, and sources don't expect it to firm. "There is no tendency at this point to raise prices," says an oils dealer.

Camphor 1.070 is likely to be further affected by the lessening of natural powder production despite its drawbacks: "Very little 1.070 is being imported these days," observes an essential oils importer, "because of the carcinogenicity of the safrole it contains." Pricing for 1.070 is expected to be firmer as usage declines. "Ocotea cymbarum is a comparably priced material," says an importer, "without the carcinogenicity."

GERANIUM OIL — Geranium oil prices have weakened in the past week due to a large Egyptian harvest, wide availability of Chinese material, and the scarcity of bourbon geranium oil on the market.

The shipping price of Egyptian oil slipped from $45.50 per kilo f.o.b. New York to $44.50 per kilo same basis. The Chinese oil spot prices also fell $1 from $23.50 per pound to $22.50 per pound.

"The 1986 Egyptian geranium oil crop was larger than the 1985 crop," says an essential oils broker, "causing the prices to soften." An essential oils importer emphasizes the Chinese presence on the market: "The Chinese have been consistently offering their material in large quantities and at prices in line with the Egyptian product."

Bourbon geranium oil from the Reunion islands "has been very difficult to get," according to an oils importer. "They've set up an allocation or quota system for distribution that makes large purchases next to impossible."

The bourbon geranium oil is the most expensive of geranium oils with a spot price of around $55 per pound. Its higher price is a result of higher production costs and limited availability. Another source ascribes the institution of the quota system in Reunion to an effort to avoid the historical practice of adulterating the oil.

CASSIA — Cassia spot prices recorded a 10c. per pound increase across the board last week. Indonesian Korintji "A" through "C" also jumped in the futures market 8c. to 10c. per pound for delivery through January, 1987 and 5c. to 10c. per pound for delivery from February through April, 1987.

Interest in Indonesian cassia was spurred on by the Indonesian government's announcement that cassia will be offered according to the "single selling system," beginning November 1. The arrangement would be similar to the current one in place for the sale of Indonesian nutmeg where a single agency is interposed between producers and foreign buyers, thereby giving the government control of prices.

"The price jumps will continue," says a spice importer, "because the government has gotten involved." US importers and brokers have fought the institution of such an agency, bringing their arguments to the Indonesian government, to no avail.

"It used to be that supply and demand governed this market, and everyone was getting along well," says a spice broker, "but now prices will become irrelevant to supply and demand."

Chinese material has subsequently been in demand and firmer at 95c. to $1.03 per pound. "Expect Chinese material to absorb some of the Indonesian market," speculates an importer, "but it will depend on the November 1 price as to how much." Imports from all points of origin have been steady, totalling 16,903,146 pounds through August, 1986, on track to match the 1985 total of 24,092,258 pounds.

PRICES TRENDLINES

WEEK ENDING OCT. 24, 1986

CHANGES/UP

Camphor Oil, 1.070, 15c. per kilo
Camphor Oil, Chinese white, 10c. per kilo
Cassia, Indonesian and Chinese, 8-10c. per lb.
Dill seed, Indian recleaned, 4c. per lb.
Ginger root, Jamaican, 10c. per lb.
Mace, Padang sifings, 10c. per lb.
Poppy seed, Dutch, 3c. per lb.
Poppy seed, Australian, 10c. per lb.

CHANGES/DOWN

Caraway seed, Egyptian reclaened, 2c. per lb.
Cardamoms, Indian bleached, 25c. per lb.
Celery seed, Indian, 1c. per lb.
Cloves, Brazilian, 5c. per lb.
Eucalyptus Oil, Chinese 80%, 5c. per lb.
Geranium Oil, Egyptian, $1 per kilo
Orange Oil, Israeli, fob 10-14c. per lb.
Spearmint Oil, Native fob, $1 per lb.
Tangerine Oil, Brazilian fob, 65c. per lb.

PERFUMES INDEX

The Perfumes & Flavorings index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1985.

Oct. 24, 1986	71.00
Oct. 17, 1986	71.00
Sept. 19, 1986	71.00
Oct. 25, 1985	71.00

Chemical Prices Start on Page 40

Chemical Finance

Occidental Sets Up Anti-Takeover Defense

Occidental Petroleum Corporation, an old hand at acquiring companies — including Cities Service Company, Iowa Beef Processors and Hooker Chemical Corporation, among others — is afraid it may eventually get a dose of its own medicine. The Los Angeles-based diversified petroleum company has adopted a "poison pill" anti-takeover measure in the form of a special stock purchase right which is exercisable only under specified conditions indicative of a hostile takeover attempt. A spokesman for the company said that Occidental is not aware of any effort to acquire the company right now.

Gulf Resources Bids for UK Energy Concern

Gulf Resources & Chemical Corporation, Boston, Mass.-based energy and diversified concern, has made a bid of about $1.07 billion in cash for Imperial Continental Gas Association, a British energy company with large holdings in the North Sea. At CDR presstime, Imperial Continental had made no response to the unsolicited bid. As a result of the bid, Standard & Poor's Corporation, one of the New York-based debt rating agencies, placed $100 million of the company's debt on "CreditWatch" with negative implications, citing the high leverage of the proposed transaction.

Marion Laboratories Has Record Sales and Earnings

Marion Laboratories, Inc., Kansas City, Mo., one of the fastest growing of the health-care companies, again recorded sales and earnings in the first quarter ended September 30. Fred W. Lyons, Jr., attributed the strong results primarily to substantial sales growth of "Cardizem" (diltiazem) and "Carafate" (sucralfate) plus increased sales in the Consumer Products Division. Net sales rose to $125.6 million from $88.4 million a year ago, a rise of 42 percent, and net earnings soared 52 percent to $20,740,000 from $13,667,000.

Reichhold Chemicals Doubles Its Operating Income

Reichhold Chemicals, Inc. reported that its third-quarter net income rose 38 percent to $2.5 million from a year ago as operating income more than doubled to $6.4 million. C. Robert Powell, chairman and CEO, said the results indicate growing strength in the company's product line and in its manufacturing organization.

Immunogenetics to Acquire Syosset Laboratories

ImmunoGenetics Incorporated, Vineland, N.J., has signed a letter of intent to purchase Syosset Laboratories, Inc. in Syosset, Long Island, N.Y. Syosset is a human dermatological company. Subject to the execution of a definitive agreement and approval of ImmunoGenetics' board of directors, the purchase is expected to be completed in November 1986.

Merck Recommendation Reaffirmed on Wall Street

Drexel Burnham Lambert, Inc. has reaffirmed its recommendation of the shares of Merck & Co. Cited are Merck's dividend increase from $1.85 to $2.20 per share following an increase only nine months earlier and a stock repurchase program totaling $300 million through the balance of this year and into 1987. Merck is generating substantial excess cash and therefore can more than afford both the dividend increase and the stock repurchase program, Drexel Burnham Lambert stated.

GAF to Offer $250 MM in Senior Subordinated Notes

GAF Corporation, Wayne, N.J., has filed a preliminary registration statement with SEC for the issuance of $250 million in senior subordinated notes and debentures. Half will be notes due 1994 and the other half will be debentures due 2001. Net proceeds will be used for general corporate purposes and investments or in acquisitions.

Witco Will Redeem 12 Percent Senior Notes

Witco Corporation, New York-based specialty chemical and petroleum company, will redeem its 12 percent senior notes due in 1995. An early redemption premium of 6% percent will be paid on the $32 million principal amount of notes outstanding, said William Wishnick, Witco's chairman. The redemption will be made in cash generated from operations and the disposition, previously announced, of certain assets.

National Distillers Declares Dividends

Directors of National Distillers & Chemical Corporation, New York, have declared quarterly dividends of 55 cents per share on the common stock, $1.0625 on the $2.125 preferred stock, 56¼ cents on the $50 preferred, and 46¼ cents on the $1.85 preference.

L'Air Liquide SA Accepts Shares of Big Three

L'Air Liquide SA said that its indirect wholly-owned subsidiary, AAL Acquisition Corporation, has accepted for payment all shares of capital stock of Big Three Industries Incorporated, validly tendered and not withdrawn under its cash tender offer for all outstanding shares at $29 per share.

Reynolds Metals Withdraws Stock Offering

Reynolds Metals Company, Richmond, Va., said it is withdrawing its proposed public offering of up to 2.3 million shares of common stock. Reynolds said proceeds from the proposed sale are no longer deemed needed for the proposed venture with Pechiney-Quebec Inc. for an aluminum plant in Becancour, Que. Instead, a portion of the proceeds from the sale last week of Robertshaw Controls Company will be used for that purpose.

B.F. Goodrich Declares Dividends

Directors of B.F. Goodrich Company have declared dividends of 39 cents per share on the common stock, $1.9625 on the $7.85 cumulative preferred, Series A; and $1.9375 on the $.975 cumulative preferred, Series B.

Cytogen Boosts Revenues, Trims its Loss

Cytogen Corporation, Princeton, N.J., trimmed its third quarter loss to $333,000 from $1 million a year ago as contract revenues jumped to $1.7 million from $100,000, primarily as a result of a new collaborative agreement with Eastman Kodak Company and several recently awarded grants.

CHEMICAL IMPORTS

US imports of chemicals and related materials are reported in this section by CPI material. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A-B

4 AMINO AMSOLE 3 SULFONIC ACID 10 drms (2,381 lbs) (Neptune Jade) Kobe, 9/22.

ACETOACET DIMETHOXY CHLORANILIDE Lonza 260 bgs (12,324 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.

ACRYLAMIDE Mitrans 960 bgs (55,402 lbs) (Ming Star) Kobe, 9/21.
Sandoz 480 bgs (27,701 lbs) (Ming Star) Kobe, 9/21.

ACRYLIC & METHACRYLIC ACID RESIN Mobil 80 drms (40,038 lbs) (Ming Star) Yokohama, 9/21.

ACTIVATED CARBON Degussa 800 bgs (35,803 lbs) (Koln Express) Bremerhaven, 9/23.

ACTIVATED VEGETABLE CARBON American Norit 880 sks (40,697 lbs) (Koln Express) Greenock, 9/23.

ADENOSINE DIPHOSPHATE & AMINO ACI Kyowa Hakko 109 pkg (13,031 lbs) (Louis Maersk) Kobe, 9/25.

AGAR AGAR Ali Transport 20 drms (2,425 lbs) (American Ohio) Rotterdam, 9/26.

Janel Intl Fwdrs 50 bgs (4,440 lbs) (Koln Express) Hamburg, 9/23.

Tic Gums 40 drms (4,762 lbs) (Tohbei Maru) Nagoya, 9/22.

ALLSPICE E L Scott 240 bgs (26,584 lbs) (Polwind) Sto Tomas, 9/22.

ALUMINA Rhone Poulenc 22 cs (48,702 lbs) (Zim Tokyo) Barcelona, 9/21.

ALUMINUM OXIDE Treibacher 1,403 pkg (157,761 lbs) (Dart Atlantica) Bremerhaven, 9/23.

ALUMINUM CHLORIDE 6 HYDRATE 306 drms (28,602 lbs) (Dusseldorf Expres) Hamburg, 9/30.

ALUMINUM OXIDE Lonza 23 plt (41,579 lbs) (Pilar) Genoa, 9/26.
Norton 1,760 bgs (197,201 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.

ALUMINUM PASTE Synergistic Pigments 389 drms (43,918 lbs) (Dusseldorf Expres) Hamburg, 9/30.

AMMONIA ALUM Joseph H Lowenstein & Sons 1,600 bgs (90,918 lbs) (Tohbei Maru) Kobe, 9/22

AMMONIUM BIFLUORIDE Kali Chemie 880 bgs (45,591 lbs) (Dart Atlantica) Bremerhaven, 9/23.

AMMONIUM SULFAMATE Atlas Intermodal Transport 900 bgs (45,238 lbs) (Ming Star) Keelung, 9/21.
Magnatron 900 bgs (45,238 lbs) (Ming Star) Keelung, 9/21.

BABASSU OIL Croda 8 drms (2,646 lbs) (American Apollo) Santos, 9/26.

BALSAM Conram Intl Trdg 10 drms (5,483 lbs) (Saint Louis) Haina, 9/19.

BARIUM CADMIUM STABILIZER Morrison Chemicals 1 tnk (42,769 lbs) (Britta Thein) Bremerhaven, 9/20

BENZALDEHYDE Janel Intl Fwdrs 76 drms (36,526 lbs) (Dusseldorf Expres) Antwerp, 9/30.

BENZOCAINE Roussel Pharmaceutical Produ 100 drms (12,015 lbs) (Koln Express) Rotterdam, 9/23.

BENZOGUANAMINE James E Fox 881 bgs (44,438 lbs) (Ever Great) Hamburg, 9/24.

BENZYL CYANIDE Inter Maritime Fwdg 1 tnk (42,7659 lbs) (Ever Great) Antwerp, 9/24.

BETA HYDROXYNAPHTHOIC ACID BON S Ueno Fine Chemical Ind 700 bgs (31,481 lbs) (Ming Star) Kobe, 9/21.

BETA HYDROZYNAPHTHOIC ACID BON A Ueno Fine Chemical Ind 480 bgs (20,984 lbs) (Ming Star) Kobe, 9/21.

BETA NAPHTHOL Montedison 1,500 bgs (88,504 lbs) (Pilar) Genoa, 9/26.

BLACK PEPPER Centrobank 400 bgs (44,621 lbs) (Tocanima) Belem, 9/13.
Durfee Foods 800 bgs (88,932 lbs) (Southern Sky) Belem, 9/22.
Ludwig Mueller 300 bgs (33,486 lbs) (Southern Sky) Belem, 9/22.
800 bgs (89,242 lbs) (Southern Sky) Belem, 9/22.

BLANC FIXE POWDER N Ore & Chemical 1,400 bgs (76,401 lbs) (Tadeusz Kosciuszk) Rotterdam, 9/22.

BLUE POPPY SEED CLEANED DUTCH Transit Trdg 880 bgs (44,002 lbs) (Britta Thein) Rotterdam, 9/26.

BORIC ACID Erichem 79 drms (28,400 lbs) (Sea Land Voyager) Rotterdam, 9/24.
Erichem Americas 2,520 bgs (255,557 lbs) (Vishva Parkat) Leghorn, 9/25.

BUTYL DICARBONATE Chemical Dynamics 4 ctn (212 lbs) (American Ohio) Rotterdam, 9/26.

C-D

CADMIUM PIGMENT Whittaker Clark & Daniels 2 drms (0 lbs) (Atlantic Carrier) Liverpool, 9/22.

CADMIUM PIGMENT YELLOW King Shpg 10 drms (1,085 lbs) (Dusseldorf Expres) Greenock, 9/30.

CAFFEINE ANHYDROUS K Heuser 250 drms (35,210 lbs) (Britta Thien) Rotterdam, 9/29.
80 drms (21,548 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.

CALCINED MAGNESIUM OXIDE ICD Group 80 bgs (4,550 lbs) (Zim Keelung) Haifa, 9/29.

CALCIUM CARBONATE H M Royal 891 Mix (48,982 lbs) (American Utah) Kobe, 9/29.
H M Royal 2,800 Mix (147,883 lbs) (American Maine) Kobe, 9/23.
HM Royal 980 bgs (49,271 lbs) (American Maine) Kobe, 9/23.
3,860 pkg (197,104 lbs) (American Maine) Kobe, 9/23.

CALCIUM GLUCONATE 192 drms (22,604 lbs) (Sea Land Voyager) Rotterdam, 9/24.

CAMOMILE POWDER Chase Manhattan Bank 100 bgs (4,409 lbs) (Thutmose) Alexandria, 9/30.

CARBON GRAPHITE Gunze New York 29 pkg (33,788 lbs) (Ming Star) Kobe, 9/21.

CARNAUBA WAX FLAKES Frank B Ross 440 bgs (44,484 lbs) (Minerva) Fortaleza, 9/18.
J W Hasson 220 bgs (22,242 lbs) (Itape) Fortaleza, 9/24.
220 bgs (22,241 lbs) (Minerva) Fortaleza, 9/18.

CASEIN Adamba Imports 2,400 bgs (264,552 lbs) (Tadeusz Kosciuszk) Bremerhaven, 9/22.
Erie Casein 400 bgs (44,092 lbs) (Tadeusz Kosciuszk) Bremerhaven, 9/22.
Norseland Foods 1,660 bgs (85,980 lbs) (Sea Land Voyager) Bremerhaven, 9/24.

CASEINATE De Zaan 800 bgs (44,780 lbs) (Ever Greet) Antwerp, 9/24.

CASSIA C F Sauer 221 bgs (33,556 lbs) (Hoegh Cairn) Padang, 9/24.
Morris J Golombeck 800 bls (67,791 lbs) (Al Wattyah) Fos, 9/25.
Otto Gerdau 517 bgs (78,318 lbs) (Hoegh Cairn) Padang, 9/24.
Daamhouwer 471 bgs (67,379 lbs) (Hoegh Cairn) Padang, 9/24.
240 bgs (33,598 lbs) (Hoegh Cairn) Padang, 9/24.
Daamhouwer 1,380 bgs (190,213 lbs) (Hoegh Cairn) Padang, 9/24.
Ludwig Mueller 160 bgs (22,399 lbs) (Hoegh Cairn) Padang, 9/24.
480 bgs (67,190 lbs) (Hoegh Cairn) Padang, 9/24.
240 bgs (33,598 lbs) (Hoegh Cairn) Padang, 9/24
Dmi 250 bgs (33,520 lbs) (Hoegh Cairn) Padang, 9/24.
Otto Gerdau 334 bgs (44,828 lbs) (Hoegh Cairn) Padang, 9/24.
Durkee Foods 250 bgs (33,170 lbs) (Hoegh Cairn) Padang, 9/24.
Gol Spice 180 bgs (22,125 lbs) (Hoegh Cairn) Padang, 9/24.
A A Sayia 167 bgs (22,560 lbs) (Hoegh Cairn) Padang, 9/24.
Durkee Foods 1,000 bgs (134,921 lbs) (Hoegh Cairn) Padang, 9/24
Louis Furth 337 bgs (55,946 lbs) (Hoegh Cairn) Padang, 9/24.
Morris J Golombeck 214 bgs (33,541 lbs) (Hoegh Cairn) Padang, 9/24
510 bgs (67,262 lbs) (Hoegh Cairn) Padang, 9/24
240 bgs (33,598 lbs) (Hoegh Cairn) Padang, 9/24.
Otto Gerdau 221 bgs (33,556 lbs) (Hoegh Cairn) Padang, 9/24.
Rua Fwdg 160 bgs (22,399 lbs) (Hoegh Cairn) Padang, 9/24.
Van De Vries Trdg 364 bgs (49,304 lbs) (Hoegh Cairn) Padang, 9/24.
195 bls (22,617 lbs) (Hoegh Cairn) Padang, 9/24.
A A Sayia 143 bgs (22,361 lbs) (Hoegh Cairn) Padang, 9/24.
Otto Gerdau 240 bgs (33,598 bgs (33,598 lbs) (Hoegh Cairn) Padang, 9/24.
Van De Vries Trdg 167 bgs (22,414 lbs) (Louis Maersk) Singapore, 9/25.
A A Sayia 333 ctn (29,374 lbs) (Hoegh Cairn) Padang, 9/24
Daamhouwer 48 ctn (2,551 lbs) (Hoegh Cairn) Padang, 9/24.
Louis Furth 125 ctn (5,548 lbs) (Hoegh Cairn) Padang, 9/24
Ludwig Mueller 143 ctn (18,267 lbs) (Hoegh Cairn) Padang, 9/24.
Morris J Golombeck 419 ctn (34,738 lbs) (Hoegh Cairn) Padang, 9/24
117 bdl (11,281 lbs) (Hoegh Cairn) Padang, 9/24.
Otto Gerdau 200 ctn (11,508 lbs) (Hoegh Cairn) Padang, 9/24.
William E Martin 200 ctn (20,692 lbs) (Hoegh Cairn) Padang, 9/24.
Louis Furth 125 ctn (5,787 lbs) (Hoegh Cairn) Padang, 9/24.

CASTOR OIL Latina Trdg 1 bks (2,050,278 lbs) (Minerva) Fortaloza, 9/26.
5 bks (9,920,790 lbs) (Stoli Vinclta) Aratu, 9/30.
1 bks (661,040 lbs) (Stoli Vinclta) Santos, 9/30.

CAUSTIC SODA 1 bks (11,774,864 lbs) (Stoli Pride) Antwerp, 9/29.
Frederick Hanjes 1 bks (5,112,719 lbs) (Sakura Cob) L Avare, 9/26.

CETYL BROMIDE Ameribrom 60 drms (29,101 lbs) (Tadeusz Kosciuszk) Rotterdam, 9/22.

CHLORACETAMIDE 195 Mix (19,315 lbs) (Koln Express) Bremerhaven, 9/23.

CHLORAMPHENICOL, LEVO loo 20 drms (2,359 lbs) (Pilar) Gnoa, 9/26.

CHOLESTEROL Belwo Bussan America 20 drms (1,323 lbs) (Louis Maersk) Kobe, 9/25.

CHROMIUM OXIDE GREEN Mitsui 800 bgs (40,801 lbs) (Neptune Jade) Kobe, 9/22.

CIMETIDINE Novopharm 32 drms (1,927 lbs) (American Ohio) Bermerhaven, 9/26.

CINNAMIC ALDEHYDE PERFUME GRADE Chemical Dynamics 76 drms (37,487 lbs) (Britta Thien) Rotterdam, 9/29.

CINNAMIN QUILLS Max Van Pels 160 bls (16,386 lbs) (Hoegh Cairn) Colombo, 9/24.

CITRAL Curto & Funk 1 drms (64 lbs) (Britta Thien) Rotterdam, 9/29.

CITRIC ACID Panalpina 2 bgs (112 lbs) (American Ohio) Bremerhaven, 9/26.
792 bgs (81,482 lbs) (Ever Great) Antwerp, 9/24.

CITRONELLA OIL 60 drms (34,921 lbs) (American Maine) Hong Kong, 9/23.

CITRONELLOL Curto & Funk 10 drms (4,277 lbs) (Britta Thien) Rotterdam, 9/29.

CITRONELLYL ACETATE Curto & Funk 1 drms (439 lbs) (Britta Thien) Rotterdam, 9/29.

CITRUS OILS Saromatic 14 drms (5,511 lbs) (Zim Tokyo) Haifa, 9/21.

CLOVE LEAF Oil, Chem Rauf 80 drms (38,977 lbs) (Ever Govern) Singapore, 9/30.

CLOVE OIL 1 drms (478 lbs) (Minerva) Rio D'Janeir, 9/18.

CLOVES Prudent Trdg 100 bgs (11,089 lbs) (Itape) Santos, 9/24.
Mitsubishi Intl 1,184 drms (658,190 lbs) (Dart Atlantica) Antwerp, 9/23.

COCONUT OIL Finent Food Distr 6 plt (18,369 lbs (San Pedro) Haina, 9/26.
1 bks (1,102,310 lbs) (Stolt Energie) Cagayan D OR, 9/10.
1 bks (5,401,319 lbs) (Stolt Energie) Egen, 9/10.
(2,167,141 lbs) (SDtolt Energie) Roxas, 9/10.

COPPER SULFATE Unimodal 96 drms (14,330 lbs) (Dart Atlantica) Felixstowe, 9/23.

CORIANDERS Louis Furth 360 bgs (47,973 lbs) (American Ohio) Felixstowe, 9/26.
Schiff Food Products 3 60 bgs (47,906 lbs) (American Ohio) Felixstowe, 9/26.
Transil Trdg 360 bgs (47,906 lbs) (American Ohio) Felixstowe, 9/26.

CUMIN SEEDS Gel Spice 450 bgs (54,584 lbs) (Dragor Maersk) Dubai, 9/24.
Indian Groceries & Spices 15 bgs (1,887 lbs) (Hoegh Cairn) Bombay, 9/24.
V A Cordovi 450 bgs (54,584 lbs) (Dragor Maersk) Dubai, 9/24.

CYANOACRYLATE ADHESIVE Kuehne & Nagel 413 pkg (12,414 lbs) (Neptune Jade) Yokohama, 9/22.

CYANURIC ACID Atlas Intermodal Transport 800 drms (84,000 lbs) (Ming Star) Keelung, 9/21.

CYANURIC CHLORIDE Lonza 640 drms (80,142 lbs) (Koln Express) Rotterdam, 9/23.

D LIMONENE Polarome Mfg 125 pkg (51,257 lbs) (American Apollo) Santos, 9/26

DEADBURNT MAGNESITE 1 bks (11,574,255 lbs) (Clary) Yerakini, 9/30.

CASTOR OIL DEHYDRATED, FATTY ACID 76 drms (33,704 lbs) (Itape) Santos, 9/24.

DEWHISKERED DILL SEED Morris J Golombeck 280 bgs (28,741 lbs) (Neptuno Jade) Singaport, 9/22.
Quality Spice 170 bgs (22,487 lbs) (Al Wattyah) Dubai, 9/25.
Morris J Golombeck 200 bgs (26,455 lbs) (Hoegh Cairn) Bombay, 9/24.

DEXTRINE 1,600 bgs (89,086 lbs) (Ever Great) Antwerp, 9/24.

DEXTROSE MONOHYDRATE Ce De Candy 3,605 bgs (40,159 lbs) (Britta Thien) Rotterdam, 9/29

DIACETYL 10 drms (4,409 lbs) (Koln Express) Rotterdam, 9/23.

DIALLYL DIMETHYL AMMONIUM CHLORIDE Calgon 2 tnk (72,025 lbs) (Sea Land Voyager) Rotterdam, 9/24

DICHLOROSILANE 13 cyl (1,944 lbs) (Britta Thien) Rotterdam, 9/23

DICYANDIAMIDE H P Lambert 810 bgs (40,770 lbs) (Ever Great) Hamburg, 9/24.

DIETHANOLAMINE 77 drms (39,553 lbs) (Dusseldorf Expres) Antwerp, 9/30.

DIETHYL OXALATE Actelochem 76 drms (35,132 lbs) (Atlantic Carrier) Liverpool, 9/22.

DIETHYL PHOSPHITE L ici Consultants 74 drms (37,522 lbs) (Tadeusz Kosciuszk) Rotterdam, 9/22.

DILL Chase Manhattan Bank 160 bgs (8,818 lbs) (Thutmose) Ale-sandria, 9/30.

DILL SEED Globe Impex 300 bgs (28,741 lbs) (Neptune Jade) Singapore, 9/22.

DIMETHYL DISULFIDE DMDS 76 drms (36,861 lbs) (Ever Summit) Fos, 9/24

DIMETHYL SULFOXIDE 2 bks (83,378 lbs) (Ever Summit) Fos, 9/24

DIMETHYLETHYLAMINE 124 drms (42,509 lbs) (Ever Summit) Fos, 9/24.

DIMETHYLPYRAZOLE Lonza 5 drms (595 lbs) (Koln Express) Bromerhaven, 9/23.

DIPENTAERYTHRITOL Hermann Ludfwig 1,260 bgs (70,000 lbs) (Ever Govern) Busan, 9/30.

DODECYL BROMIDE Ameribrom 20 drms (9,259 lbs) (Tadeusz Kosciuszk) Rotterdam, 9/22.

DUNDICUT CHILLIES Louis Futh 600 drms (33,334 lbs) (Neptune Jade) Singapore, 9/22.

E-H

EPHEDRINE HCL Mwm Chelcal 40 ctn (2,557 lbs) (American Maine) Hong Kong, 9/23.

EPSOM SALT Nuodex 400 bgs (41,389 lbs) (Dusseldorf Express) Bremerhaven, 9/30.

EPSOM SALTS Quelcham 2,400 bgs (242,118 lbs) (Ever Great) Hamburg, 9/24.

ETHYL ALCOHOL Joseph E Seeram 2 tnk (72,564 lbs) (Sea Land Voyager) Rotterdam, 9/24.

ETHYL ALUMINUM DICHLORIDE Shares Chemicals 1 tnk (32,716 lbs) (Koln Express) Hamburg, 9/23.

ETHYL BROMOACETATE Amerbrom 43 drms (9,006 lbs) (Zim Tokyo) Haifa, 9/21.

ETHYL BUTYRATE Bubal 8 drms (494 lbs) (Dart Atlantica) Felixstowe, 9/23.

ETHYL ISOVALERATE 5 drms (2,161 lbs) (Dart Atlantica) Felixstowe, 9/23.

ETHYLHEXANOL 2 bks (2,204,382 lbs) (Stephanie) Rotterdam, 9/27.

EUCALYPTUS OIL E L Scott 76 drms (36,389 lbs) (Pilar) Cadiz, 9/26.

FATTY ACID Leydan Customs Expenditure 1,800 bgs (90,993 lbs) (Ever Great) Antwerp, 9/24.

FENNEL SEEDS A A Sayia 220 bgs (220 bgs (24,251 lbs) (Thutmose) Alexandria, 9/30.
Bharat Bazaar 15 bgs (893 lbs) (Hoegh Cairn) Bombay, 9/24.
Mireh 400 bgs (44,092 lbs) (Thutmose) Alexandria, 9/30.
Quality Spice 240 bgs (26,455 lbs) (Thutmose) Alexandria, 9/30.
Van De Vries Trdg 100 bgs (11,023 lbs) (Thutmose) Alexandria, 9/30.
K & M Custom Brokers 1 bks (3,403,212 lbs) (Sandra Farber) Tarragona, 9/21.

FERROAMMONIUM CITRATE George Uhe 425 drms (48,195 lbs) (Ever Great) Hamburg, 9/24.

FISH OIL Quality Foods Oils 84 pkg (36,420 lbs) (Britta Thien) Hamburg, 9/29.

FLUOROCARBON POLYMER Nichimen 22 drms (2,619 lbs) (Louis Mersk) Kobe, 9/25.
84 drms (9,799 lbs) (Tohbei Maru) Tokyo, 9/22.
Viking Sea Freight 160 drms (0 lbs) (Tohbei Maru) Tokyo, 9/22.

GERANIOL Curto & Funk 10 drms (4,332 lbs) (Britta Thien) Rotterdam, 9/29.

GERANIUM OIL George Uhe 8 drms (1,019 lbs) (Zim Keelung) Barcelona, 9/29.

GERANYL ACETATE Curto & Funk 13 drms (5,899 lbs) (Britta Thien) Rotterdam, 9/29.

GINGER PASTE Nakimoto Trdg 3 ctn (46 lbs) (Ming Star) Yokohama, 9/21.

GINGER ROOTS FRESH Emax Intl Trdg 1,100 ctn (33,351 lbs) (American Apollo) Santos, 9/26.

GLUCONATE Berlex Laboratories 88 drms (5,481 lbs) (Koln Express) Hamburg, 9/23.

GLYCERIN Trans World Shpg 1 con (47,399 lbs) (Britta Thien) Hamburg, 9/29.
Keystone Chemical 250 drms (38,148 lbs) (Minerva) Santos, 9/18.
Mitsubishi Intl 160 drms (32,077 lbs) (Louis Maersk) Tokyo, 9/25.

GRAPE Oil, Seaus Imports Exports 10 ctn (317 lbs) (American Apollo) Buenos Aires, 9/26.

GREEK OREGANO Quality Spice 551 bgs (11,023 lbs) (Zim Tokyo) Piraeus, 9/21.

GUAR GUM A E Pellet 882 bgs (44,780 lbs) (Al Wattyah) Dubia, 9/25.
Celanese 1,440 bgs (80,000 lbs) (Al Wattyah) Dubai, 9/25.
Celanese Water Soluble Polym 2,160 bgs (120,001 lbs) (Al Wattyah) Dubai, 9/25.
Harris Brown 800 bgs (40,565 lbs) (Hoegh Cairn) Bombay, 9/24.
Premcam Gums 800 bgs (40,230 lbs) (Al Wattyah) Dubai, 9/25.
Tic Gums 837 bgs (42,496 lbs) (Al Wattyah) Dubai, 9/25
Tragacanth Imports 800 bgs (40,741 lbs) (Pilar) Genoa, 9/26.
Colony Imports & Exports 800 bgs (40,618 lbs) (Al Wattyah) Dubai, 9/25.

GUM ARABIC Colloides Naturels 380 bgs (40,477 lbs) (Sea Land Voyager) Rotterdam, 9/24.
Roberto Bucci 2,000 bgs (223,768 lbs) (Strathconon) Rotterdam, 9/25.

GUM KARAYA Block Drug 470 bgs (90,146 lbs) (Al Wattyah) Dubai, 9/25.
Colony Imports & Exports 198 bgs (38,230 lbs) (Al Wattyah) Dubai, 9/25.

GUM ROSIN Pdm 89 drms (39,246 lbs) (Minerva) Santos, 9/18.

GUM TURPENTINE Pim 2 con (79, 277 lbs) (Bacol Santos) Santos, 9/24.

HEPTANE 1 bks (1,683,408 lbs) (Sandra Farber) Tarragona, 9/21

HEXYLENE GLYCOL Icc Ind 78 drms (34,736 lbs) (Minerva) Santos, 9/18.

HIDE GLUE Transatlantic by Products 400 bgs (39,860 lbs) (American Apollo) Rio Grd Do S, 9/26.

HYDROQUINONE TECHNICAL Mitsui 200 drms (21,781 lbs) (Ming Star) Kobe, 9/21.

HYDROXYCITRONELLAL Curto & Funk 10 drms (4,497 lbs) (Britta Thien) Rotterdam, 9/29.

I-L

INDIAN CELERY SEED Altari Brothers 255 bgs (33,731 lbs) (Al Wattyah) Dubai, 9/25.
McCormick 187 bgs (24,324 lbs) (Al Wattyah) Dubai, 9/25.
Morris J Golombeck 255 bgs (33,731 lbs) (Al Wattyah) Dubai, 9/25.
Altari Brothers 425 bgs (56,217 lbs) (Al Wattyah) Dubai, 9/25.
McCormick 250 bgs (33,069 lbs) (Al Wattyah) Dubai, 9/25.

INDIAN DILL SEEDS Van De Vries Trdg 170 bgs (22,112 lbs) (Al Wattyah) Dubai, 9/25.

INDIAN GUM KARAYA Celanese 320 bgs (38,261 lbs) (Al Wattyah) Dubai, 9/25.
Colony Imports & Exports 212 bgs (38,232 lbs) (Al Wattyah) Dubai, 9/25.

IRON BLUE PIGMENT Dainichiseika Color & Chemic 1,200 bgs (62,152 lbs) (Ming Star) Yokohama, 9/21

IRON OXIDE Orgo Thermit 14 drms (36,752 lbs) (Ever Green) Antwerp, 9/24

IRON SULFATE 5 bxs (236 lbs) (Dusseldorf Expres) Hamburg, 9/30

ISOPHTHALIC ANHYDRIDE Adco Chemical 700 bgs (39,573 lbs) (Ever Summit) Genoa, 9/24.
Ashland Chemical 20 bbg (40,785 lbs) (Ever Summit) Leghorn, 9/24

ISOPROPANYL PESTICIDE LIQUID Haina Jobman 17 drms (0 lbs) (American Maine) Jeddah, 9/23.

ISOPROPYL ALCOHOL 1 bks (1,293,401 lbs) (Sandra Farber) Tarragona, 9/21.
1 bks (2,643,937 lbs) (Stoli Vinclta) Campena, 9/30.

ISOTRIDECYL ALCOHOL 1 bks (1,102,258 lbs) (Stoli Vinclta) Santos, 9/30.

JAMAICA PIMENTO LEAF OIL 5 pkg (2,680 lbs) (San Pedro) Haina, 9/26.

L-EPHEDRINE Genes Chemicals 40 ctn (2,557 lbs) (American Utah) Hong Kong, 9/29.

LACTIC ACID G F Expeditors 70 drms (39,043 lbs) (Minerva) Rio D Janeir, 9/18.

LACTIC CASEIN New Zealand Milk Products 2,400 bgs (134,392 lbs) (Columbus Australi) Wellington, 9/19.

LAKE RED C AM INE B GRADE Universal Transcontinental 400 bgs (23,833 lbs) (Ming Star) Kobe, 9/21.

LAUREL LEAVES John H Eiton 15 bls (2,313 lbs) (Pilar) Valencia, 9/26.

LEAD ACETATE J M Rodgers 320 drms (36,801 lbs (Ming Star) Kobe, 9/21.

LEAD CARBONATE PIGMENT Gebr Hirdgs 38 col (2,507 lbs) (Ever Greet) Hamburg, 9/24.

LEMON OIL Ungerer 10 drms (4,101 lbs) (American Apollo) Santos, 9/26.

LEMONGRASS Oil Fritzsche Dodge &Olcott 25 drms (11,011 lbs) (Saint Louis) Haina, 9/19.

LIDOCAINE HCL Asra Westobor 38 drms (3,726 lbs) (Atlantic Carrier) Gothenburg, 9/22.

LILESTRALIS Curto & Funk 20 drms (9,215 lbs) (Britta Thien) Rotterdam, 9/29.

LIME OIL DISTILLED 50 drms (22,419 lbs) (Polwind) Vera Cruz, 9/22.

LINALOOL 180 drms (67,745 lbs) (Ming Star) Yokohama, 9/21.

M-O

MAGNESIUM BROMIDE 6 HYDRATE PURE Crescent Chemicals 1 bx (29 lbs) (Dusseldorf Expres) Hamburg, 9/30.

MAGNESIUM OXIDE GRANULAR Roussel Pharmaceutical Produ 662 drms (78,810 lbs) (Ming Star) Kobe, 9/21.

MAGNESIUM SULFATE ANHYDROUS Potash Import & Chemical 800 bgs (80,688 lbs) (Koln Express) Bremerhaven, 9/23.

MALAYSIAN BLACK PEPPER East West Intl Trdg 210 bgs (33,069 lbs) (Ever Govern) Singapore, 9/30.
Ludwig Mueller 660 bgs (88,184 lbs) (Ever Govern) Singapore, 9/30.

MALEIC ANHYDRIDE Fleet Shpg Lines 700 bgs (39,157 lbs) (Hanjin Long Beach) Busan, 9/26.
1,400 bls (78,334 lbs) (Hanjin Long Beach) Busan, 9/26.

MARJORAM A A Sayia 240 bgs (13,228 lbs) (Thutmose) Alexandria, 9/30.
Chase Manhattan Bank 1,125 bgs (49,604 lbs) (Thutmose) Alexandria, 9/30.
Ludwig Mueller 200 bghs (11,023 lbs) (Thutmose) Alexandria, 9/30.
Mireh 500 bgs (22,046 lbs) (Thutmose) Alexandria, 9/30.

MELAMINE MOULDING COMPOUND 820 bgs (45,194 lbs) (Zim Keelung) Haifa, 9/29.
820 bgs (45,194 lbs) (Zim Tokyo) Haifa, 9/21.

MENTHOL CRYSTALS Sarcom 20 drms (2,403 lbs) (American Apollo) Santos, 9/28.

MENTHOL CRYSTALS RASWEY BRAND American Shpg 100 drms (11,019 lbs) (Santa Catarina) Paranagua, 9/24.

METHOXYCITRONELLAL Curto & Funk 1 drms (428 lbs) (Britta Thien) Rotterdam, 9/29.

Continued on Page 56

CHEMICAL PRICES

WEEK ENDING OCTOBER 24, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bid and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

A

Abies alba, dms. kilo	25.00	27.00
Acetaldehyde, 99%, tanks, frt. alld. lb.	.37	–
Prices 1c. higher in West.		
Acetaminophen (see N-Acetyl-p-aminophenol)		
Acetanilide, tech, flaked, bgs, t.l., f.o.b. works. lb.	1.29	–
Acetic acid, tech., tanks, divd. E. lb.	.25	–
Acetic anhydride, tanks, divd. E. lb.	.43½	–
Acetic anhydride prices 1c. higher in West.		
Acetoacetanilide, dms., t.l., divd. lb.	1.29	–
Acetoacet-o-anisidide, dms., t.l., divd. lb.	2.70	–
Acetoacet-o-chloroanilide, dms., t.l., divd. lb.	2.85	–
Acetoacet-o-toluidide, dms., t.l., divd. lb.	1.58	–
Acetoacet-m-xylidide, dms., t.l., divd. lb.	3.33	–
Acetone, tanks, divd. E. lb.	.25	–
divd. Zone 2 (Calif.) lb.	.27	–
divd. Zone 3 (W. of Rockies excluding Calif.) lb.	.27	–
Acetonitrile, tanks, frt. alld. lb.	.53	.54½
Acetophenetidin (see Phenacetin).		
Acetophenone, tech., tanks, f.o.b. works. lb.	.76	.85
perfume grade, extra, cns. lb.	2.15	–
N-Acetyl-p-aminophenol, c.l., t.l. works. kilo	5.95	6.84
Acetylene black, imp., 50% compressed, 12½-lb. bgs. c.l., t.l. frt. extra. lb.	.96	–
100%, 25-lb. bgs., same basis. lb.	.95½	–
Acetylene tetrabromide, tanks, f.o.b. works. lb.	.97	–
Acetylsalicylic acid, USP (see Aspirin).		
Acetyltributyl citrate, bulk, f.o.b. works. lb.	1.28	–
Acetyltriethyl citrate, bulk, f.o.b. works. lb.	2.06	–
Acrolein, tech., tanks, works. lb.	.82	–
Acrylamide, solid, t.l. works. lb.	1.00	–
soln., 100% basis tanks, works. lb.	.74	.77
Acrylic acid, glacial, reg., tanks, divd. lb.	.67	–
tech., tanks, frt. alld. lb.	.60	–
Acrylonitrile, tanks, works. lb.	.39½	.45½
Acrylonitrile-butadiene-styrene resin, high-impact, nat., t.l., dms., divd. lb.	1.09	1.12
medium-impact, nat., same basis lb.	1.05	1.08
low-impact, nat., same basis. lb.	.98	1.01
Adipic acid, resin grade, bulk, hopper cars, frt. equald. lb.	.57	–
bgs., t.l., c.l. frt. equald. lb.	.59	–
Agar USP, powd., 60 to 100 mesh., dms. lb.	9.50	9.85
Alcohol, syn. C-6 to C-10, tanks, f.o.b. works. lb.	.38	–
C-12 to C-13, tanks, divd. lb.	.57	.59
C-14 to C-15, tanks, divd. lb.	.57	–
C-16 to C-18, tanks, divd. lb.	.60	–
Aldehyde, C-6, dms. lb.	4.10	5.70
C-7, dms. lb.	1.95	–
C-8, dms. lb.	4.30	8.30
C-10 dms. lb.	4.30	5.35
Algin (see Sodium alginate.)		
Alkali blue, dry, flushed, 110-lb. dms, divd. lb.	3.72	3.83
Alkali blue prices 1c higher W. of Rockies.		
Allspice Guatemalan / Honduran, bgs. lb.	.87	–
Jamaican, bgs. lb.	1.05	–
Allyl alcohol, tanks, f.o.b., Bayport, Tex. lb.	.90	–
Allyl bromide, 500-kilo dms. 2,000 lbs. or more, works. lb.	5.50	–
Allyl caproate, 25-lb. cns. lb.	3.90	4.50
Allyl chloride, tanks, f.o.b. works. lb.	.65	–
Allyl isothiocyanate, bots. lb.	5.40	6.90
Almond oil, artif., bitter (see Benzaldehyde.)		
Almond oil, nat. bitter, NF f.f.p.a. bots. lb.	3.50	3.60
sweet. lb.	1.24	1.50
Aloe, Cape, cs. lb.	2.00	–
powd., cs. lb.	2.25	2.75
Curacao, kgs. lb.	2.60	–
powd., kgs. lb.	3.00	–
Aloin, NF, dms. lb.	8.00	8.70
Alum, ammonium, tech. gran., bgs., c.l., t.l., works. 100 lb.	35.00	–
FCC powd., fiber dms., works 100lbs.	55.00	–
Alum, potassium, tech. gran. bgs., c.l., t.l., works. 100 lbs.	35.00	–
FCC powd. fiber dms., works. 100 lbs.	55.00	–
Alumina, activated, gran., 100-lb. bgs., 40,000-lb. min. c.l., works. ton	821.00	–
calcined, bulk, same basis. ton	354.00	–
100-lb. bgs., same basis. ton	380.00	–
hydrated, white, bulk, same basis. ton	190.00	–
100-lb. bgs., same basis. ton	224.00	–
Aluminum acetate, basic, dms., l.c.l., works. lb.	3.25	–
Aluminum chloride, anhyd., soln., 500-600 lb. dms., c.l., t.l., works, frt. equald. lb.	.53	–
bulk, same basis. lb.	.48	–
semi-bulk bins, same basis. lb.	.52	–
Aluminum chloride, coml., soln., 32° tanks, works. 100 lbs.	15.00	–
ret. dms., c.l., works. 100 lbs.	12.00	–
non-ret. dms., same basis. 100 lbs.	20.00	–
Aluminum formate, dibasic, liq. 8% Al_2O_3 t.l., works. lb.	.55	–
Aluminum hydrate (see Alumina, hydrated)		
Aluminum hydroxide, dried, gel, NF, 75-lb. dms., c.l., t.l., works. lb.	2.75	3.50
Aluminum metal, 99½% or more, 50-lb. pigs., 30,000-lb. lots, frt. alld. lb.	.78	–
Aluminum oxide amorphous (see Alumina, calcined).		
Aluminum paste, leafing grade, std., lining, 2,400 lb. lots, divd. lb.	1.40	–
lining, extra-fine, same basis. lb.	1.99	2.14
Aluminum phenolsulfonate, purif., 100-kilo dms., t.l. kilo	6.46	–
Aluminum powder, leafing grade, std. lining, 2,400 lb. lots, divd. lb.	3.17	–
extra fine, lining, same basis. lb.	4.04	–
Aluminum stearate, bgs., c.l. lb.	1.25	1.37
Aluminum sulfate, coml., grd., 100 lb. bgs., c.l., works, frt. equald., basis 17% Al_2O_3 East and Gulf Coasts. ton	205.00	–
West Coast. ton	220.80	–
liq., tanks, N.E. same basis. ton	145.00	–
iron-free, dry, bgs., c.l. same basis. ton	300.00	–
liq., tanks, same basis. ton	225.00	265.00
Aluminum sulfate, USP, gran., dms. lb.	–	.337
Aminoacetic acid, USP, dms., 20,000 lbs., f.o.b. works. lb.	2.12	–
tech., t.l., same basis. lb.	1.88	–
p-Aminobenzoic acid, 1,000 kilos or more, dms., f.o.b. works. kilo	9.60	10.10
2-Amino-4-chlorophenol dry and grd., 14,000 lbs. or more, frt. alld. lb.	5.79	–
Aminoethyl ethanolamine, tanks, frt. collect. lb.	1.33½	–
N-Aminoethyl piperazine, tanks, f.o.b., frt. collect. lb.	1.05	–
2-Amino-2-ethyl-1,3-propanediol dms., t.l. f.o.b. works. lb.	1.82	–
2-Amino-2-methyl-1-propanol, 95%, dms., c.l., t.l., f.o.b. works. lb.	.95	–
tanks, f.o.b. works. lb.	.89	–
o-Aminophenol, dms., f.o.b. Charlotte, N.C. lb.	3.95	–
p-Aminophenol, t.l. dms., f.o.b. Raleigh, N.C. kilo	7.15	–
p-Aminosalicylic acid, USP, 50-kilo dms., t.l. kilo	18.50	–
Ammonia, anhyd., fertilizer, wholesale, tanks, divd. Midwest terminals. ton	165.00	170.00
tankcars, f.o.b. Gulf Coast. ton	80.00	85.00
aqueous, 29.4% NH_3, anhyd. basis, tanks, frt. equald. E. of Rockies. ton	260.00	315.00
Ammoniacal liquor (see Ammonia, aqueous).		
Ammoniac sal, galvanizing grade, bgs., c.l., f.o.b. works. 100lbs	28.60	–
Ammoniac sal. white (see Ammonium chloride coml.).		
Ammonium biborate, gran., dms., c.l. works. lb.	.90	–
Ammonium biborate powder 15c. per lb. higher.		
Ammonium bicarbonate, 300-lb. fib. dms., c.l., works. 100 lbs.	26.00	–
bgs., c.l. 100 lbs.	25.00	–
Ammonium bichromate, photo-litho grade, gran. 100-lb. dms., l.t.l. works. lb.	2.00	–
Ammonium bifluoride, bgs., t.l., works. lb.	.70	–
Ammonium bromide, dom. NF, gran., dms., c.l., t.l., f.o.b. works. lb.	1.31	–
Ammonium chloride, white, tech., fine gran., bgs., c.l., works. 100lbs.	18.00	–
USP, gran., dms. lb.	.40	.53
Ammonium citrate, dibasic, 250-lb. dms. f.o.b. works. lb.	2.79	–
Ammonium dimolybdate, approx. 85%, 24,000 lbs. or more. lb.	5.48	–
Ammonium fluoborate, tech., dms., c.l., t.l., works, frt. equald. lb.	1.79	–
Ammonium heptamolybdate, cryst., dms., 24,000 lbs. f.o.b. works. lb.	5.57	–
Ammonium lauryl sulfate, tanks, f.o.b. works. lb.	.29	.32
Ammonium lignin, sulfonate, bulk, f.o.b. Hoquiam, Ore. ton	72.00	–
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bulk, S.E. divd. ton	130.00	135.00
Ammonium oxalate, tech., fine. gran. 300-lb. dms., t.l., f.o.b. works. lb.	1.42	1.68
Ammonium pentaborate gran. bgs., c.l., works. lb.	.75	–
Ammonium pentaborate powder 20c. per lb. higher.		
Ammonium persulfate, 225-lb. dms, 24,000 lbs. or more, f.o.b. works. lb.	.58	–
55-lb. bgs., same basis. lb.	.56½	–
Ammonium phosphate (see Di- and monoammonium phosphates).		
Ammonium silicofluoride, dms. c.l., t.l., works. lb.	.30¾	–
Ammonium sulfate, lg. gran., bulk, c.l., works. ton	80.00	90.00
std., coml., bulk, f.o.b. works. ton	60.00	70.00
tech., bgs., c.l., t.l., works. ton	108.00	120.00
Ammonium sulfide, liq., 40-44% tanks, 100% basis, frt. equald. ton	460.00	–
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).		
Ammonium thiocyanate, tech., cryst., bgs., c.l., works. lb.	1.02	–
tech soln., 50%, tanks, frt. equald. lb.	.93	–
Ammonium thiosulfate, photographic, 60%, tanks, f.o.b. works. lb.	.13	–
Ammonium zirconyl carbonate, soln., bulk. lb.	.72	–
Amyl acetate, primary mixed isomers, tanks, divd. lb.	.57	–
Amyl alcohol, primary mixed isomers, tanks, frt. alld. lb.	.46½	–
Amyl cinnamic aldehyde, dms. lb.	2.35	2.50
p-tert-Amylphenol, bulk, works. lb.	.91	1.03
Amyris oil, dms. lb.	11.00	–
Anethole, tech., dms. kilo	10.20	–
USP, dms. lb.	3.85	4.60
Angelica root oil, bots. kilo	700.00	–
Aniline, tanks, f.o.b. lb.	.33	.35½
Anise oil, dms. kilo	8.90	–
Anise seed, Chinese, bgs. lb.	1.30	–
Spanish, bgs. lb.	1.08	1.18
Turkish, bgs. lb.	1.00	–
Anisic aldehyde, cns., dms. lb.	4.80	5.40
o-Anisidine, imp., dms., divd. lb.	2.27	–
p-Anisidine, imp., cast solid, dms., works. lb.	1.90	–
flakes, same basis. lb.	2.25	–
Anthranilic acid, purif., 99% min., dms., t.l., frt. alld. lb.	1.70	–
Antimony fluoborate, liq. conc., 175-lb. dms., t.l., works. lb.	3.02	–
Antimony metal. bulk, c.l., mines. lb.	1.35	1.39
Antimony oxide, high-tint, bgs., c.l., frt. alld. E. of Rockies. lb.	1.35	1.50
Antimony trichloride, anhyd., solid, dms., t.l. works. lb.	3.60	–
Apomorphine hydrochloride, NF, bots. gm.	15.00	–
Apricot kernel oil, dms. lb.	2.05	–
Arabic gum, powd., bbls. lb.	1.85	2.15
spray dried. lb.	2.00	2.59
USP grade. lb.	6.75	9.25
Aromatic petroleum solvents (see Solvent, naphtha petroleum, aromatic).		
Arsenic, crude (see Arsenious trioxide).		
Arylid, red (see Napthol, arylid red).		
Arsenious trioxide, 99%, bulk, c.l., f.o.b. warehouse. lb.	.42	.45
Asbestine (see Talc, fibrous).		
Ascorbic acid, USP, 100 kilos, divd. kilo	9.00	10.50
Ash, black (see Barium sulfide).		
Asphalt gilsonite, (see Gilsonite).		
Asphalt petroleum cutback, tanks, E. Coast. gal.	.86	–
emulsion, tanks, tankwagons, E. Coast. gal.	.68	–
steam-refined, 40-300 penetration, tanks, tankwagon. ton	170.00	–
steep roofing grade, bulk tankwagon. ton	175.00	–
Aspirin, USP, cryst., powd., 250-lb. dms., c.l., f.o.b. lb.	1.95	–
10% starch granulation, white, 250-lb. dm, c.l., f.o.b. lb.	1.97	–
16% starch granulation, white, same basis. lb.	2.80	–
Freight equald. shipt. identical quantity over standard route from N.Y., Phila., Midland, Mich., Chicago and St. Louis.		
Atropine sulfate, USP, bots. oz.	10.00	11.00
Avocado oil, dms. lb.	4.00	4.55
Azelaic acid, tech., 50-lb. bgs., t.l., c.l., divd. lb.	1.23	–
Azo orange, bbls., divd. lb.	4.60	–
Azo yellow, 10 G, bgs., divd. E. of Rockies. lb.	4.40	–
Azo G yellow pigment, bgs., same basis. lb.	2.45	–

B

Bacitracin, USP, non-sterile, one billion units or more. million units	6.30	6.60
Barbital, NF, 50-kilo dms., divd. kilo	22.50	–
Barbital-sodium, NF, 50-kilo dms. divd. kilo	23.00	–
Barite, dry-grd., Southern, off-color, coarse, bgs., c.l., f.o.b. mines lb.	.09	.11
water-grd., white, bgs., c.l., f.o.b. works. lb.	.13	–
unbleached, extra-fine, pigment grade, c.l., f.o.b. works. ton	160.00	–
Barium carbonate, precip., bulk, c.l., works, frt. equald. lb.	.25	–
bgs., same basis. lb.	.25½	–
photo grade, bgs., same basis ton	510.00	–
Barium chlorate, 100-lb. dms., 1-10 dm. lots, works. lb.	1.04	–
Barium chloride, tech., cryst., bgs., c.l., works. ton	470.00	–
anhyd. drums c.l., same basis. ton	590.00	–
Barium chloride, purif., cryst. 400-lb. dms., works. lb.	3.76	–
Barium monohydrate, 55-lb. bgs., c.l., t.l. f.o.b. works. 100 lbs.	48.00	–
octahydrate, cryst., bgs., same basis. 100 lbs.	33.00	–
Barium nitrate, 100-lb. bgs., t.l., works. 100 lbs.	32.50	–
Barium oxide, grd., dms., c.l., divd. 100 lbs.	31.25	–
tote bins, same basis. 100 lbs.	30.00	–
Barium peroxide, 700-lb. dms., c.l., t.l., works. lb.	.30	–
Barium stearate, bulk, t.l., f.o.b. dest. lb.	1.05	–
Barium sulfate, tech. (see Barite and Blanc fixe).		
Barium sulfate, USP, X-ray diagnosis grade, powd., 25 kilo bgs., 10,000 kilo lots. lb.	.58½	–
Barium sulfide (black ash), dms., c.l., works. ton	460.00	–
Basil Egyptian. lb.	.69	.92
French. lb.	.88	.90
Basil oil, Comores. lb.	55.00	–
Basil oil, Egyptian. lb.	62.00	–
Battery acid, t.l., f.o.b., works. ton	52.00	70.75
Bauxite, calcined, refractory grade, 87%-88% Al_2O_3, Baltimore & Mobile. metric-ton	229.28	–
Bay oil, NF, 50-55%, dms. lb.	11.00	–
Bayberry wax, bgs. lb.	2.70	3.00
Beeswax, refd., bleached white, bricks, 100-lb. ctns. lb.	3.10	3.20
white, slabs, 100-lb. ctns. lb.	3.05	3.10
yellow, bricks, 100-lb. ctns. lb.	3.00	3.10
yellow, slabs, 100-lb. ctns. lb.	2.95	3.05
Bentonite, dom., c.l. bags, f.o.b. works. ton	43.50	–
Benzaldehyde, NF, dms. lb.	1.25	–
tech., dms., c.l., t.l. lb.	.73	.83
Prices are 4c. per lb. higher West of the Rockies.		
Benzene, indust. or nitration, barges, f.o.b.		
Baton Rouge, La. gal.	.85	–
Baytown, Tex. gal.	.85	–
Beaumont, Tex. gal.	.85	–
Catlettsburg, Ky. gal.	.85	–
Chicago district. gal.	.85	–
Chocolate Bayou, Tex. gal.	.85	–
Clairton, Pa. gal.	.85	–
Corpus Christi, Tex. gal.	.85	–
Deer Park, Tex. gal.	.85	–
Houston district, spot. gal.	.83	.84
Lima, Ohio. gal.	.85	–
Wood River, Ill. gal.	.85	–
Benzene hexachloride, 99% gamma isomer (see Lindane).		
Benzidine orange, powd., bgs., divd. lb.	4.90	8.70
liq., containers, divd. lb.	3.38	3.89
Benzidine yellow, AAA, bgs., divd. lb.	5.80	6.05
AAOA, bgs., divd. lb.	7.35	7.40
AAOT, bgs., divd. lb.	5.95	6.20
Benzocaine, USP, dms., 1,000 kg. lots, f.o.b., works. kg.	10.00	11.50
Benzodihydropyrone, dms. lb.	12.50	–
Benzoic acid, tech., bgs., c.l., t.l., f.o.b. works. lb.	.55	.58
USP cryst., dms., ton lots same basis. lb.	1.73	1.75
Benzoin gum, Sumatra, cs. lb.	1.80	–
Benzophenone, N.F., 1,000 lbs. or more, f.o.b. lb.	3.50	3.60
N.F., 1,000 kilos or more, f.o.b. kg.	7.45	–
tech, 1,000 kilos or more. fob works. kgs.	4.35	–
2,2-Benzothiazyl disulfide (see Mercaptobenzothiazyl disulfide).		
Benzotriazole, flake, dms., 1,000 lbs. or more, f.o.b. works. lb.	6.10	–
powd, dms., 1,000 lbs. or more, same basis. lb.	6.20	–
photo-grade, dms., 1,000 lbs. or more, same basis. lb.	9.90	–
Benzotrichloride, refd., dms. t.l., frt. equald. lb.	.87	–
tanks, frt. equald. lb.	.80	–
Benzoyl chloride dms., c.l., works. lb.	.57	.59
tanks, frt. equald. lb.	.74½	.75
Benzoyl peroxide, regular gran., 10,000-lb. lots or more, bgs., works, frt. equald. lb.	2.35	6.98
paste, 50% and 55% formulations, dms., pails, frt. equald. lb.	1.71	1.95
Benzyl acetate, dms. lb.	1.20	2.60
Benzyl alcohol, N.F. t.l. dms. frt. equald. lb.	1.26	1.85
tanks, same basis	1.37	1.43
photo grade, t.l., dms., same basis. lb.	1.40	–
tanks, same basis	1.34	–
tech. grade, t.l., dms., same basis lb.	1.32	–
tanks, same basis.	1.28	–
Benzyl benzoate, dms. lb.	1.05	2.25
Benzyl chloride, tech., non-ret. dms., c.l., t.l., frt. equald. lb.	.59	–
tanks, f.o.b. lb.	.54	–
Benzyl cinnamate, 25-lb. cns. lb.	8.50	9.96
n-Benzyl-N,N-dimethylamine, t.l., dms., f.o.b. works. lb.	2.30	–
Benzyl formate, dms. lb.	10.50	–
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).		
Benzyl isoeugenol, dms. lb.	15.50	–
Benzyl propionate, dms. lb.	3.35	–
Benzyl salicylate. lb.	2.90	3.25
Benzylidine acetone, cns., bots. lb.	2.95	3.25
Bergamot oil. kilo	44.00	–
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).		
Biotin, cryst. 500 gms. or more. gm.	5.50	–
Biphenyl (see Diphenyl).		
Bismuth nitrate, purif. cryst., 100-lb dms., frt. equald. lb.	10.00	–
Bismuth oxychloride, 100-lb. dms., works. lb.	17.20	–
Bismuth subcarbonate, USP, medium powd., 225-lb. dms., works. lb.	15.31	15.50
Bismuth subgallate, purif., 100-lb. dms., works. lb.	10.50	–
Bismuth subnitrate NF, powd., 200-lb. dms., works. lb.	14.45	–
Bismuth subsalicylate, purif. powd., 50-100 lb. dms., works. lb.	17.00	–
Bismuth trioxide, reagent. powd., 100-lb. dms., works. lb.	15.00	15.45
Bisphenol-A, epoxy grade, hopper cars, divd. lb.	.67	–
polycarbonate grade, same basis lb.	.71	–
Blanc fixe, syn., imp., bags. lb.	.20	–
Bois de rose oil, Braz., dms. lb.	6.75	–
BON toner (red 48) dms., frt. alld. lb.	7.25	8.05
(red 52) dms., same basis. lb.	6.50	7.90
Bonemeal, steamed, dom., bgs., c.l., f.o.b. Midwest plants. ton	180.00	190.00
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).		
Bone phosphate, precip. (see Calcium phosphate tribasic).		
Borax, tech., anhyd, 99%, bgs., c.l., works. ton	647.00	–
bulk, c.l., works. ton	602.00	–
Borax, tech., gran., decahydrate, 99½% bgs., c.l., works. ton	237.00	–
bulk, c.l., works. ton	192.00	–
tech., pentahydrate, gran. 99½%, bgs., c.l., works. ton	265.00	–
bulk, c.l., works. ton	220.00	–
Borax, NF (See Sodium borate).		
Boric acid, tech., gran., 99.9%, bgs., c.l., works. ton	614.00	–
bulk, c.l., works. ton	569.00	–
Boron trichloride, CP, 1,800-lb. cyls., works. lb.	3.80	–
Boron trifluoride, 60-lb. cyls., t.l., f.o.b. works. lb.	4.03	–
bulk, same basis. lb.	3.47	–
Boron trifluoride, etherate, 500-lb. dms., t.l., f.o.b., works. lb.	2.35	–
phenolate, 500-lb. dms., t.l., same basis. lb.	1.65	–
Bromine, dms., t.l., works. lb.	.87	–
bulk, 45,000-lb. min., works. lb.	.33	.34½
purif., t.l., divd. lb.	.75	
Bromine divd., prices for dms. and bulk shipped W. of Rockies, 1c.-per-lb. higher. Bulk t.l. prices 1c. to 2½c.-per-lb. higher for 30,000-lb. min. and 4c. to 5½c.-per-lb. higher for 15,000-lb. min.		
Bromochloromethane, dms., c.l., f.o.b. Midland. lb.	1.12	–
Butadiene, tanks, f.o.b. lb.	.12½	.13
1,4-Butanediol, tanks, f.o.b., frt. equald. lb.	.80	–
dms., same basis. lb.	.88	–
Butene-1, tanks, f.o.b. works. lb.	.26	.28
n-Butyl acetate, syn., tanks, frt. alld. lb.	.52½	–
n-Butyl acrylate, tanks, frt. alld. E. lb.	.69	–
n-Butyl alcohol, syn., ferment, tanks, frt. alld. lb.	.34	–
sec-Butyl alcohol, syn., tanks, divd. lb.	.365	–
tert-Butyl alcohol, syn., tanks, divd. E. lb.	.70	–
Butyl aldehyde (see Butyraldehyde)		
Butyl benzyl phthalate, tanks, frt. alld. lb.	.59	–
Butyl chloride, tanks, works. lb.	.99	1.00
Butyl cyclohexyl phthalate, tanks, divd. lb.	.74	–
n-Butyl ether, dms., c.l., t.l., works. lb.	1.85	–
Butyl isodecyl phthalate, tanks, divd. lb.	.35	–
n-Butyl lactate, tanks, f.o.b. works. lb.	1.58	–
n-Butyllithium, 15% soln., 1,000-lb. lots or more, cyls., 100% basis, divd. lb.	15.45	–
tanks, 3,000-lb. min., 100% basis, divd. lb.	14.75	–
Butyl methacrylate, tanks, frt. equald. lb.	.88	–
Butyl octyl phthalate, tanks, divd. E. lb.	.40	42
Butyl oleate, dist., dms., c.l. lb	.70	.82
tanks. lb.	.60	.75
p-tert-Butylphenol, tanks works. lb.	.70	–
Butyl phthalate (see Dibutyl phthalate).		
Butyl stearate cosmetic, dms., 77 dms or more. lb	91	.97
tanks. lb	92	–
Butyl stearate tech., t.l. lb.	.60	.62
tanks. lb.	.55	.58
Butylamine (see Mono-, Di- and Tributylamine).		
tert-Butylamine, dms., c.l., t.l., f.o.b. works. lb.	1.31	–
tanks, same basis. lb.	1.17	–
Butylated hydroxyanisole, food grade, dms., divd. lb.	8.80	8.85
Butylated hydroxytoluene, food, feed grades, c.l., t.l., bgs., divd. lb.	1.24	1.30
tech., bgs., c.l., t.l., divd. lb.	1.24	1.30
1,3-Butylene glycol, tanks, divd. lb.	.72	–
Butyraldehyde, tanks, divd. lb.	.29½	.38
Butyric acid, tanks, frt. alld. lb.	.44½	–
Butyric ether (see Ethyl butyrate).		
Butyrolactone, tanks, f.o.b. plant. lb.	1.20	–
n-Butyronitrile, dms., c.l., divd. lb.	.93	–
tanks, divd. lb.	.54	–

C

Cadmium chloride, purif. cryst., 100-lb. dms., t.l., works. lb.	3.73	–
Cadmium, CP, red, dark shade, bbls., 100-lb. lots, frt. alld., E. of Rockies. lb.	11.33	16.35
light shade, bbls., same basis. lb.	9.16	12.06
medium shade, bbls., same basis. lb.	10.69	15.20
medium-light shade, bbls., same basis. lb.	10.26	14.50
Cadmium, CP yellow, all shades, bbls., 100-lb. lots, frt. alld., E. of Rockies. lb.	6.10	7.07
Cadmium fluoborate, liq. conc., dms., t.l., works, frt. equald. lb.	2.27	–
medium-light shade, bbls., same basis. lb.	3.22	–
Cadmium-mercury lithopone, maroon shade, bbls., frt. alld. E. of Rockies. lb.	4.60	–
Cadmium metal ingots or sticks, ton lots, cs., divd. lb.	1.20	1.50
Cadmium nitrate, purif., flake 400-lb. dms., c.l., t.l., f.o.b. ship. pt. lb.	2.10	–
Cadmium-selenide-lithopone, orange, light shade, bbls., 400-lb. lots. frt. alld. E. of Rockies. lb.	3.97	4.00
deep shade, bbls., same basis. lb.	4.47	4.50
Cadmium-selenide lithopone, red, dark shade, bbls., same basis. lb.	6.77	6.80
light shade, bbls., same basis. lb.	5.27	5.30
medium light shade, bbls., same basis. lb.	6.72	6.75
medium shade, bbls., same basis. lb.	6.37	6.40
maroon shade, bbls., same basis. lb.	7.47	–
Cadmium-selenide lithopone, yellow, all shades, bbls., same basis. lb.	2.97	3.00
Cadmium sulfate, 50-lb. dms., any quantity, f.o.b. ship. pl. lb.	4.05	–
Caffeine, dom., USP, syn. cryst, anhyd., powd., 100-lb. dms., c.l., t.l., frt. alld. lb.	4.80	–
imp., cryst., anhyd., powd., dms. 10,000 lbs. or more. lb.	4.70	4.88
Calamine, USP, dms. lb.	1.50	1.70
Calamus oil, dms. lb.	26.80	35.00
Calciferol. (see Ergocalciferol).		
Calcium acetate, purif., powd., dms. t.l., works. lb.	.67	–
Calcium carbide, std., generator size, bulk, c.l., f.o.b., works. ton	402.00	–
Calcium carbonate, pulverized, 325-mesh, bgs., bulk, f.o.b. works. ton	46.00	–
slurries, 54% solids, same basis. ton	97.00	100.00
72% solids, same basis. ton	109.27	–
quicklime, gran., ind., bulk, works. ton	100.93	–
Calcium carbonate, coated, bgs., c.l., works. lb.	.0830	.1600
Calcium carbonate, precip., bgs., c.l., t.l. ton	385.00	445.00
Calcium carbonate precip. medium, bgs., c.l., works. ton	110.00	150.00
precip. dense. bgs., c.l., surface treated, bgs., c.l., works. ton	265.00	–
ultrafine, USP, bgs., c.l., works. ton	217.00	225.00
Calcium chloride, conc., reg. grade 77-80%, flake, bulk, c.l., works. ton	153.00	–
100-lb. bgs., c.l., same basis. ton	196.00	–
anhyd., 94-97%, flake or pellet, bulk, c.l., same basis. ton	217.00	–
80-lb. bgs., c.l., same basis. ton	279.00	–
brining grade, 80-lb. bags. ton	285.00	–
Calcium chloride, liq., 100 percent basis, t.c., t.t., barge. ton	99.75	–
45% same basis. ton	118.00	–
Calcium chloride, USP, gran., 225-lb. dms., t.l., frt. equald. lb.	.90	–
Calcium citrate, purif., 200-lb. dms., 10,000 lbs. or more, f.o.b. works. lb.	3.82	–
Calcium cyanamide, indust., anhyd. dms., works. ton	400.00	450.00
Calcium gluconate, USP powd. t.l. lb.	1.80	–
Calcium hydride, lump, dms., 25-1,000-lb. lots. works. lb.	10.50	13.25
Calcium hypochlorite, 100-lb. dms., truckloads ship.t. E. of Rockies. 100 lbs.	92.40	–
Calcium hypophosphite, dms., bulk, 500 kilos or more. kilo	13.75	14.50
Calcium iodate, FCC dms., f.o.b. works. lb.	5.50	–
Calcium iodide, 50-kilo dms., f.o.b. works. kilo	23.65	25.65
Calcium lactate, NF, powd., pentahydrate, dms., 24,000 lbs. or more, f.o.b works. lb.	2.00	–
NF, gran., trihydrate, same basis. lb.	2.10	–
special gran., dried grade, same basis. lb.	2.80	–
Calcium naphthenate, liq. 4% Ca., c.l. f.o.b plant, E of Rockies. lb	85	–
d-Calcium pantothenate, USP, 100-500-kilo lots. kilo	11 50	12.50
dl-Calcium pantothenate, feed grade, f.o b. frt. alld, 250 kilos or more. kilo	8.00	8.50
dl-Calcium pantothenate, calcium chloride complex, feed grade, 160 grams per lb., f.o.b., frt. alld., 500 lbs or more. lb.	2.75	–
Calcium phosphate, dibasic, feed grade, 18½% P. bulk, c.l., t.l., f.o.b. works. ton	228.00	–
Calcium phosphate, dibasic, dihydrate, USP, bgs, c.l., t.l., works, frt. equald. 100 lbs.	62.50	–
anhyd., USP, same basis. 100 lbs.	71.75	–
dentifrice grade, same basis. 80 lbs.	49.90	–
Calcium phosphate, monobasic, monohydrate, food grade, bgs., c.l., t.l., works, frt. equald. 100 lbs.	50.50	–
anhyd., food grade, same basis. 100 lbs.	54.95	–
tribasic, NF precip., bgs., c.l., frt. equald. 100 lbs.	62.50	–
Calcium propionate, dms., 2,000 lbs. or more f.o.b. frt. alld. lb.	.50	.55
Calcium silicate, hydrated, bgs., c.l., works. lb.	.07	–
Calcium silicate, paint grade (see Wollastonite).		
Calomel, NF, mild powd., 100-lb. dms., f.o.b. works. lb.	8.50	–
Camphene chlorinated, 67-69% (see Toxaphene).		
Camphor, monobromated, dms., kgs. lb.	3.63	3.70
Camphor, syn., tech., 165-lb. dms., 5,000 lbs. or more. lb.	1.80	–
USP, powd., 165-lb. dms., 5,000 lb. lots or more. lb.	2.36	–
syn., refd., 1-oz. tablets, ctns. 1,000-lb. lots or more. lb.	3.50	–
Camphor oil, yellow, 25-lb. dms. lb.	1.65	–
white, dms. lb.	2.00	–
spec. grav., 1.070, dms. lb.	2.65	2.85
Cananga oil, Indonesian, dms. kilo	17.50	–
Candelilla wax, crude, bgs. lb.	1.90	–
refd. pure, bgs. lb.	2.10	–
Capric acid, coml, pure, dms. lb.	.60	.65
tanks. lb.	.60	.66
Capric aldehyde (aldehyde C-10) dms., cns. lb.	3.95	5.35
Caprolactam monomer, flake, bgs., t.l., f.o.b. shipping point. lb.	.87	–
molten, tanks, same basis. lb.	.85	–
Capryl alcohol sec. 92-99% tanks, f.o.b. works. lb.	.35	–
Caprylic acid, coml, pure tanks. lb.	.73½	–
Capsicum (see Pepper, red).		
Capsicum oil (see Capsicum oleoresin).		
Capsicum oleoresin, NF, from dom., pepper, dms. lb.	11.00	–
NF, from African pepper, dms.		
500,000 pungency. lb.	9.00	–
1,000,000 pungency. lb.	17.00	18.00
Caraway oil, Poland, dms. lb.	22.00	25.00
Caraway seed, Dutch, bgs. lb.	.58	.59
Egyptian, bgs. lb.	.50	.53
Carbon black, furnace, fast extruding (FEF), bulk, c.l., works. lb.	.2125	–
bgs., c.l. works. lb.	.2425	–
general purpose (GPF), bulk, c.l., works. lb.	.2075	–
bgs., c.l. works. lb.	.2375	–
high abrasion (HAF), high structure, bulk, c.l. works. lb.	.2300	–
bgs., c.l. works. lb.	.2600	–

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Carbon Black, low structure, bulk, c.l. works. lb.	.240	.260
bags, c.l. works. lb.	.270	.290
intermediate-super-abrasion (ISAF). lb.	.25	–
bgs., c.l. works. lb.	.28	–
super-abrasion (SAF), bulk, c.l., works. lb.	.31	–
bgs., c.l., works. lb.	.4050	–
semi-reinforcing (SRF), bulk, c.l., works. lb.	.210	–
bgs., c.l., works. lb.	.240	–
Carbon black, thermal, medium, bgs. c.l., works. lb.	.30	.30½
bulk, c.l. works. lb.	.32	.34½
Carbon black oil, barge, f.o.b. Gulf refineries. bbls.	10.50	12.50
f.o.b. W. coast refineries. bbls.	10.50	12.50
Carbon disulfide, t.c., f.o.b. works ton	420.00	–
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb.	.36	–
tech., dms., c.l., t.l., frt. alld. lb.	.31	–
tank transport (min. 4,000 gals.) frt. alld. lb.	.24	–
Carboxymethyl cellulose (see CMC).		
Cardamom oil, NF, bots. lb.	60.00	–
Cardamoms, decort, Guatemalan. lb.	3.00	–
green, Guatemalan, bgs. lb.	6.25	9.75
Carmine, No. 40, NF, bulk, 100-lb. lots or more, divd. lb.	135.00	140.00
Carnauba wax, Parnahyba, No. 1, yellow, bgs., ton lots. lb.	1.95	2.05
Ceara, No. 1, yellow, bgs., ton lots. lb.	1.75	1.90
North Country, No. 2, refined, bgs., ton lots. lb.	1.55	1.65
Carnauba wax, North Country No. 3, centrifuged, bgs., ton lots. lb	1.10	–
North Country, No 3, refined, bgs., ton lots. lb.	1.30	1.45
Powdered carnauba wax, 20 to 100 mesh, 20c. per lb. higher.		
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram., 33 lbs. or more. lb.	32.75	–
b-Carotene, liq. in vegetable oil, 500,000 A units per gram., 33 lbs or more. lb.	40.75	–
b-Carotene, dry beads, 10%, 167,000 A units per gram 50-lb cns lb.	26 85	–
d-Carvone, 25-lb. dms., syn. lb.	48.00	–
l-Carvone. lb.	7.00	7.25
Cascara sagrada bark, bulk. lb.	1.00	–
Casein, imp., acid-precip., grd., 30-mesh, Australian, edible, same basis. c.i.f. lb.	1.45	–
Australian, indust., same basis. c.i.f. lb.	1.365	–
Cassella acid, 303 mol. wt., dms., frt. alld., 100% basis. lb.	3.70	–
Cassia oil, Chinese, dms. lb.	18.50	–
Cassia, Korintji "A" bgs. lb.	1.05	1.10
"B" bgs. lb.	.88	.95
Castor oil, raw, No. 1, Braz. tanks. lb.	.31	.33
USP 5-9 dms. lb.	.74	–
refd. deod., 5-9 dms. lb.	.78	–
blown, 5-9 dms. lb.	.75	–
dehydrated, bodied, tanks. lb.	.74	–
dehydrated, unbodied, tanks. lb.	.65	–
Castor oil, acids dehydrated, dms. lb.	1.10	–
ricinoleic acid. lb.	.79½	.83
Castor pomace, bgs., container load, f.o.b., Miami, Fla. ton	154.00	–
Castoreum, nat., cns. lb.	18.00	35.00
syn., cns. lb.	11.00	–
Catechol, CP, 45-kilo dms., 50-239 dms., f.o.b. kilo	7.93	–
tech., bgs., t.l., same basis. kilo	3.71	–
Caustic potash (see Potash, caustic).		
Caustic soda (see Soda, caustic).		
Cedarleaf oil, dms. lb.	17.50	–
Cedarwood oil, Texas, dms., cns. lb.	1.75	2.50
Virginia. lb.	4.75	–
Cedrol, prime dms. lb.	5.25	–
Cedryl acetate, dist., dms. lb.	4.25	5.30
Celery seed, Indian, bgs. lb.	.48	–
Celery seed oil. lb.	37.00	–
Cellulose acetate, powd., bgs., t.l., divd. E. lb.	1.30	–
Cellulose acetate butyrate, powd., 17% butryl content, bgs., t.l., divd. E. lb.	1.75	–
38% butryl content, bgs., divd. E. lb.	1.59	–
50% butryl content, bgs., divd. E. lb.	1.81	–
55% butryl content, bgs., divd. E. lb.	1.63	–
Cellulose gum, pure, high vis., bgs., 24,000-lb. lots or more works, f.o.b. Hopewell, Va. lb.	1.60	1.70
std., low or medium vis., bgs., c.l., t.l., f.o.b. Hopewell, Va. lb.	1.80	1.90
Cerium concentrate CeO_2, 50 lbs. lb.	1.35	–
Cerium hydroxide 90% CeO_2, dms., works. lb.	5.40	–
77% CeO_2, dms., works. lb.	4.20	1.60
Cerium oxide, optical grade, bgs., 50-lb. lots or more, divd. lb.	1.85	1.90
Cetyl alcohol, NF, cns., c.l., t.l., divd. E. lb.	.88½	1.27
Chalk (see Calcium carbonate).		
Chamomile flowers, Hungarian, cs. lb.	4.25	4.50
Roman, cs. lb.	4.94	–
Egyptian, whole. lb.	2.70	3.00
Chamomile oil, blue, Egyptian. lb.	545.00	–
blue, Hungarian. lb.	370.90	–
Chenopodium oil, NF, cns. lb.	15.00	–
Chicago acid, dry, bbls., frt. alld. lb.	13.50	–
Chilies (see Pepper, red).		
Chlorendic anhydride, tech., dms., t.l. works. lb.	1.30	–
Chlorinated paraffin, 40% chlorine, bulk, divd., Zone 1. lb.	.45	.46½
50% chlorine, same basis. lb.	.46	.47½
60% chlorine, same basis. lb.	.46½	.48½
70% chlorine, resinous, 50-lb. bgs., c.l., divd., Zone 1. lb.	.69	–

ABBREVIATIONS

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

a/alpha; alld./allowed; amorph./amorphous; AMP/American melting point; anhyd./anhydrous; AOAC/Association of Official Agricultural Chemists; a.p.a./available phosphoric acid; approx./approximately; artif./artificial; ASTM/American Society for Testing & Materials

b/beta; Be/Baume; bbls./barrels; b.g./beta-gamma; bgs./bags; bls./bales; bots./bottles; b.p./boiling point; b.p.l./bone phosphate of lime; b.r./boiling range; bxs./boxes

C./Centigrade; cbys./carboys; c.c./cubic centimeters; CD/completely denatured; c.i.f./cost insurance freight; c.l./carload; cns./cans; coml./commercial; conc./concentrated; cp/chemically pure; cps./centipoises; cryst./crystalline; cs./cases; ctns./cartons; cyls./cylinders

d-/dextro; dbl./double; denat./denatured; dest.-dist./destructively distilled; dl/dextro-laevo; dist./distilled; distr./distributor; divd./delivered; dms./drums; dom./domestic

E/East; e.p./end point; equald./equalized; exp./expressed; extr./extracted

F./Fahrenheit; f.a.s./free alongside; ferment./fermentation; f.f.a./free fatty acid; f.f.c./free from chlorine; f.f.p.a./free from prussic acid; fib./fiber; f.o.b./free on board; f.p./freezing point; frt./freight

g-/gamma; gal./gallon; g.p./general purpose; gran./granular; grd./ground

i.b.p./initial boiling point; imp./imported

incl./included; indust./industrial; kgs./kegs

l-/laevo; lb./pound; l.c.l./less carload; l.t.l./less truckload; liq./liquid

m-/meta; m.a.p./mixed aniline point; mcg./microgram; mfrs./manufacturers; min./minimum; molt./molten; m.p./melting point

N/nitrogen; n-/normal; nat./natural; neut./neutral; NF/National Formulary; No./number; Nom./nominal

o-/ortho; ord./ordinary; oz./ounce

P/phosphorus; p-/para; Pac./Pacific; pf./proof; phos./phosphate; photo/photographic; pkgs./packages; powd./powdered; precip./precipitated; prod./producer; pt./point; pulv./pulverized; purif./purified

redist./redistilled; refd./refined; refy./refinery; resub./resublimed; ret./returnable

SD/specially denatured; s.d./single distilled; SE/Southeast; sec./secondary

secs./seconds; sp.g./specific gravity; shipt./shipment; soln./solution; std./standard; syn./synthetic

tanks/railroad tankcars; tech./technical; tert./tertiary; t.l./truckload; ton/refers to short ton of 2,000 pounds; TVA/temporary voluntary allowance; t.w./tankwagons

USP/United States Pharmacopeia

vis./viscosity; VM&P/varnish makers & painters

W/West; whse./warehouse; w.w./water-white

NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Marketing Reporter gives the price of 2,000 pounds of the material.

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Chlorinated paraffin, Zone 2 prices are 1c. per lb. higher and Zone 3 prices are 2c per lb. higher and t.l. drum prices are 5c per lb. higher

Chlorinated rubber, 5, 10, 20 cps., bgs, t.l., dlvd. ... lb.	1.86	–
40 cps, bgs., t.l., dlvd. ... lb.	1.92	–
125 cps., bgs., t.l., dlvd. ... lb.	2.60	–
300 cps., bgs., t.l., dlvd. ... lb.	2.75	–
Chlorine, tanks single units works, f.o.b., frt. equald. ... ton	195.00	200.00
Chloroacetic acid, mono, high purity, flake, 99% bulk f.o.b. works ... lb.	.56	–
2-Chloro-4-aminotoluene, tech., liq., dms., c.l., t.l., f.o.b. works ... lb.	1.88	–
o-Chloroaniline, liquid, dms., c.l., f.o.b. works ... lb.	1.63	–
tanks, same basis ... lb.	1.55	–
p-Chloroaniline, solid, c.l., t.l., f.o.b. lb.	1.70	–
flake, dms., c.l., same basis ... lb.	2.00	–
o-Chlorobenzaldehyde, dms., t.l., works ... lb.	2.45	–
p-Chlorobenzaldehyde, dms., 2,000 lbs. or more, works ... lb.	3.84	3.85
o-Chlorobenzoic acid, dms. l.t.l. wks. ... lb.	3.90	–
p-Chlorobenzoic acid, dms., 500-lb. lots or more, works ... lb.	1.69	2.25
Chloroform, tech. tanks, distr. dlvd. ... lb.	.34½	–
tech., consumers, tanks, dlvd. ... lb.	.34½	–
NF tanks, min., consumer, 4,000 gals. dlvd. ... lb.	.35½	–
2-Chloro-4-nitroaniline, paste, commodity basis, dms., t.l., f.o.b. ... lb.	3.06	–
powd., same basis ... lb.	3.16	–
4-Chloro-2-nitroaniline, paste, 172.5 mol. wt., commodity basis, dms., t.l., f.o.b. ... lb.	2.25	–
powd., same basis ... lb.	2.70	–
o-Chlorophenol, dms., c.l., frt. equald. ... lb.	2.00	2.40
p-Chlorophenol, dms., c.l., frt. equald. ... lb.	1.25	1.70
Chloropicrin, coml., 1,500-lb. cyls., t.l., f.o.b. works ... lb.	1.25	–
Chlorosulfonic acid, tanks, frt. equald. ... lb.	.18½	–
p-Chlorotoluene, tech., tanks, works ... lb.	1.00	–
Cholecalciferol, dry, 40,000,000 units per gram, kilo lots ... gm.	24.00	–
Choline bitartrate, cryst., 98% min., 50 kilo dms, f.o.b. Springfield, Mo. ... kilo.	6.90	–
Choline chloride, feed grade, 70% aqueous, t.c., t.t., dlvd. E of Rockies ... lb.	.28	–
60% dry supplement ... lb.	.39	–
Choline chloride, 60% dry supplement, bulk hopper cars ... lb.	.39	–
bgs., 50,000 lbs. min. ... lb.	.40	–
Choline chloride, pharmaceutical, 50 kilo. lots, f.o.b. Springfield, Mo. ... kilo.	6.00	–
Choline dihydrogen citrate, 98% min., 50 kilo lots, f.o.b. Springfield, Mo. ... kilo.	6.00	–
Chrome green, CP extra light, bgs., dlvd. E. of Rockies ... lb.	1.68	–
light, bgs., same basis ... lb.	1.70	–
medium, bgs., same basis ... lb.	1.72	–
extra deep, CP, same basis ... lb.	1.74	–
Chrome orange, CP, bgs., dlvd. E. of Rockies ... lb.	.83	.89
Chrome yellow CP bbls., dlvd. E. of Rockies ... lb.	1.09	1.18
Chromic acid, 99¾%, flake dms., c.l., frt. equald. ... lb.	1.18	–
grd., same basis ... lb.	1.25	–
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works ... lb.	.10	–
Chromium fluoride, dms., t.l., works ... lb.	.81	–
Chromium nitrate, dms., t.l., f.o.b. ... lb.	1.45	–
10% metal soln., 500-lb. dms. same basis ... lb.	.74	.86
Chromium oxide, hydrated, 50-lb. bgs., c.l. ... lb.	5.50	–
pure, bgs., c.l. ... lb.	1.90	2.00
Cinnamic aldehyde, cns., dms. ... lb.	1.65	2.45
Cinnamic alcohol, 25-lb. cns. ... lb.	4.50	–
Cinnamon, H2 ... lb.	1.05	1.10
Cinnamon bark oil, bots. ... lb.	105.00	110.00
Cinnamon leaf oil, dms. ... lb.	2.75	–
Citral, nat., dms. ... lb.	5.50	6.65
syn., 55-gal. dms. f.o.b. ... lb.	3.16	–
Citric acid, USP, hydrous, gran., 250-lb. dms., t.l. ... lb.	1.19	–
Citric acid, USP, anhyd., gran. 250-lb. dms., t.l., del ... lb.	.86	–
Citric acid anhyde, powder bc. higher		
Citronella oil, Ceylon, dms. ... lb.	2.15	2.20
Java, dms. ... lb.	2.60	–
China, dms. ... lb.	2.60	–
Citronellal, 25-lb cans ... lb.	3.85	7.40
Citronellol drums, f.o.b. ... lb.	3.68	–
Citronellyl acetate, dms. ... lb.	5.50	6.50
Citronellyl formate, 25-lb. cns. ... lb.	6.86	–
Civet, artl., bots ... lb.	20.00	–
nat. ... lb.	400.00	–
Clay ball, dom. air floated, bgs., c.l., Tenn. ... ton	49.00	–
dom., crushed, moisture-repellent, bulk, c.l., Tenn. ... ton	24.00	–
Clay China (see Kaolin).		
Cleaners, naphtha, 140° flash tanks., New Jersey or New York, dlvd. ... gal.	1.40	–
Clove leaf oil Indonesian, reg. dms. kilo	3.15	–
Madagascar, reg. ... kilo	3.40	–
Clove bud oil ... kilo	26.00	27.00
Cloves, Brazil ... lb.	2.35	2.40
Zanzibar ... lb.	4.20	–
Madagascar ... lb.	2.35	2.40
CMC, technical, 96% minimum, low or medium vis., bgs., 24,000 lbs., f.o.b. Hopewell, Va., 100% basis ... lb.	1.25	–
detergent makers, f.o.b. manufacturing point ... lb.	.64	–
CMC, purif., high vis., (see Cellulose gum).		
Coaltar pitch, indust., liq., works ... ton.	250.00	255.00
roofing, 140–155, Federal specification RP-381 Type 1, bulk works ... ton	350.00	–
Cobalt acetate, dms., t.l., frt. alld. ... lb.	3.81	4.25
Cobalt carbonate, powd., dms., frt. alld. ... lb.	6.61	8.18
Cobalt chloride, dms., 5,000 lbs. or more, ft. equald. ... lb.	4.15	–
Cobalt hydrate, dms., t.l., frt. alld. ... lb.	8.20	10.65
Cobalt metal, 99.5-99.9%, 250-kilo. dms., f.o.b. NY, Chicago. ... lb.	11.70	–
Cobalt naphthenate, liq., 6% Co., dms., dlvd. ... lb.	2.06	–
Cobalt nitrate, dms., t.l., frt. alld. ... lb.	2.74	3.45
Cobalt oxide, imp., black, 72-73% Co. ... lb.	9.51	–
Cobalt oxide, imp., 70-71% Co. ... lb.	9.78	–
Cobalt phosphate powd. 32.1% Co., dms., dlvd. ... lb.	1.35	–
Cobalt resinate fused, 3% Co., dms. ... lb.	.36½	–
Cobalt sulfate, cryst., bgs., 10,000 lbs. or more, frt. alld. E. ... lb.	2.81	3.54
monohydrate, dms., frt. alld. ... lb.	4.56	6.02
Cobalt tallate, 6% Co., dms., dlvd. ... lb.	2.16	–
Cocillana bark, bls. ... lb.	.40	.45
Cocoa butter, spot ... lb.	2.20	–
Coconut oil (See Oils, Fats & Waxes market report.).		
Coconut oil acids, distilled, t.c., f.o.b. ... lb.	.52	.58
double distilled, same basis ... lb.	.54	.63
Cod oil, f.o.b., Gloucester, Mass., bulk ... gal.	6.60	–
Codeine alkaloid, NF, 25-kilo lots, ... kilo.	900.00	–
Codeine phosphate, USP, cns., 25-kilo lots ... kilo	640.00	–
Codeine sulfate, NF cns., 25-kilo lots ... kilo	775.00	–
Codliver oil, NF, dms. ... gal.	6.50	7.25
Copaiba balsam, dms. ... lb.	1.50	–
Copaiba oil, cns., dms. ... lb.	3.75	–
Copper acetate, monohydrate, cryst., tech., dms., t.l., works ... lb.	.71	.74
Copper bromide, (cupric) 200-lb. dms., 100,000-lbs. -per-year contracts, works ... lb.	1.34	–
Copper carbonate, 55% Cu, dark, dense, 50-lb. bgs., c.l., t.l., works ... 100 lbs.	108.30	–
light, fluffy, 50 lb. bags, c.l., t.l., works ... 100 lbs.	109.30	–
Copper chloride (cupric), anhyd., c.l., works ... lb.	.90	–
Copper cyanide, tech. dms., 24,000-lb. lots or more ... lb.	2.30	2.62
Copper fluoborate, (cupric), liq. conc., dms., t.l., works, frt. equald. ... lb.	.82	–
Copper gluconate, FCC grade, 25-lb. dm., frt. equald. ... lb.	6.50	–
Copper metal electrolytic wire bars, dlvd., domestic basis ... lb.	.62½	–
Copper naphthenate, liq., 8% Cu., dms., frt. alld. ... lb.	1.19	–
Copper nitrate (cupric), purif., flake, dms., t.l., works ... lb.	.43¼	–
Copper oleate, solid, 8% Cu. dms., works frt alld ... lb.	.97	–
Copper oxide, black (cupric), dms., 80,000-lb. lots, works ... lb.	1.21	–
red (cuprous), dms., 97%, USN Type 1, (AA), 80,000-lb. lots, works ... lb.	1.19	1.20
red, 90%, Type 2, same basis ... lb.	1.15	–
Copper-8-quinolinolate, 10%, liq. emulsion, t.l., dlvd ... lb.	2.52	–
Copper sulfate, cryst., pentahydrate, 99% bgs., c.l., f.o.b. works ... 100 lbs.	46.45	–
CP, pentahydrate, cryst., dms., l.c.l., works ... 100 lbs.	60.00	–
monohydrated, 35% Cu, dms., c.l., works ... 100 lbs.	75.10	–
basic, bgs., c.l., works ... 100 lbs.	88.30	–
Coriander oil, USP, dms. ... lb.	32.00	34.00
Coriander seed Moroccan ... lb.	.36	–
Rumanian ... lb.	.36	.37
Corn oil (See Oils, Fats & Waxes market report).		
Corn oil, crude, foots (soapstock), 95% acid; New York ... lb.	.13½	.14
Corn oil acid, dms. ... lb.	.50	–
tanks ... lb.	.32	.40
Corn syrup 43 Be., tanks, f.o.b. works ... 100 lbs.	11.22	11.43
Cortisone acetate, USP, dms., 5 kilos or more ... gram.	.80	–
Cottonseed meal (See Oils, Fats & Waxes market report.)		
Cottonseed oil (See Oils, Fats & Waxes market report.)		
Cottonseed oil, acidulated (soap stock), acid, 95%, tanks, N.Y. ... lb.	.13	–
Cottonseed oil acids, dist., dms. ... lb.	.63	–
tanks ... lb.	.55	–
Coumarin, NF X, cryst., over 600-lb. lots ... lb.	6.00	6.20
Cream of tartar (see Potassium bitartrate).		
Creosote, coaltar, grade 1, tanks, f.o.b. works ... gal.	1.15	1.18
soln., 80/20, tanks, same basis ... gal.	1.134	1.17
p-Cresidine, fused, dms., works ... lb.	4.31	–
m-Cresol, 95-98%, dms., t.l., f.o.b. ... lb.	1.71	–
tanks, same basis ... lb.	1.65	–
m,p-Cresol, 99%, dms., t.l., f.o.b. ... lb.	.94	–
bulk, same basis ... lb.	.82	–
o-Cresol, 99% pure, dms., t.l., f.o.b. lb.	.87	–
bulk, same basis ... lb.	.75	–
98% pure, dms., t.l., f.o.b. ... lb.	.87	–
bulk, same basis ... lb.	.75	–
p-Cresol, 98%, dms., t.l., f.o.b. ... lb.	1.22	–
bulk, same basis ... lb.	.95	1.15
Cresylic acid, coaltar, dom., metapara content above 25%, resin and tricresyl phosphate grades, tanks, frt. alld ... lb.	.58	–
Cresylic acid, dom., metapara content 25% or less, tanks, frt. alld. lb.	.58	–
Crotonic acid, 200-lb. dms., t.l., f.o.b. dlvd. ... lb.	1.60	–
Cryolite syn., bulk, c.l., works ... ton	510.00	550.00
Cube root, powd., 5% rotenone, basis, 50-lb. bgs., t.l., works ... lb.	.60	–
Cumene, bulk, contract, f.o.b. ... lb.	.14	.14
Cumin seed, Indian, bgs. ... lb.	.95	1.00
Cyanuric acid, dms., c.l., t.l. frt. equald ... lb.	1.16	1.37
Cyclamen aldehyde, 50% min. aldehyde content, dms. ... lb.	4.85	–
96.5%, dms. ... lb.	7.35	9.20
90-92%, dms. ... lb.	7.85	–
Cyclohexane, bulk, barges, wks ... gal.	.9825	.9925
Cyclohexanol tech., tanks, f.o.b. ... lb.	.52	.66½
Cyclohexanone tech., tanks, f.o.b. works ... lb.	.55½	.58½
tanks, dlvd. ... lb.	.565	–
Cyclohexylamine, tech., tanks, works ... lb.	.85	–

D

2,4-D acid, tech., 50-lb. bgs., c.l., t.l., works, frt. equald. ... lb.	1.10	1.25
2,4-D butyl ester, tech., 55-gal. dms., c.l., t.l., works, frt. equald. ... lb.	1.30	–
tanks, same basis ... lb.	1.25	–
2,4-D dimethylamine salt, t.c., t.t. works, frt. alld ... gal.	8.05	–
Decyl alcohol, mixed isomers, tanks, dlvd ... lb.	.32	–
perfume grade, dms ... lb.	.75	–
Defluorinated phosphate (tricalcium), feed grade, 18% P, c.l., bulk, f.o.b. works ... ton	195.00	228.00
Denatured alcohol, ethyl, CD18, CD19, tanks, dlvd. E. ... gal.	1.87	–
NOTE: Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.		
Denatured alcohol, ethyl,		
SD2B, tanks, dlvd. E. ... gal.	1.81	–
SD3A, tanks, dlvd. E. ... gal.	1.76½	–
SD23A, tanks, dlvd. E. ... gal.	1.86	–
SD23H, tanks, dlvd. E. ... gal.	1.89	–
SD29, tanks, dlvd. E. ... gal.	1.83	–
SD30, tanks, dlvd. E. ... gal.	1.72½	–
SD35A, tanks, dlvd. E. ... gal.	1.88½	–
Denatured alcohol, ethyl, brucine formula SD40, tanks, dlvd. E. ... gal.	1.83	–
ethyl, optional formula, SD40, tanks, dlvd. E. ... gal.	1.82½	–
For anhyd. alcohol on above formulas, prices are 12c. per gal. higher.		
West Coast dlvd. prices are the same as Eastern prices, except in Idaho, Oregon and Washington where a 5c. differential on tankcars is maintained.		
Desoxyephedrine hydrochloride (See Methamphetamine hydrochloride)		
Detergent alkylate, straight chain dodecylbenzene, tanks, barges, f.o.b. ... lb.	.45	–
Dextrin, corn, canary dark, paper bgs., c.l., works ... 100 lbs.	28.04	–
white, paper bgs., c.l., works ... 100 lbs.	27.43	–
Dextrose, anhyd., coml., bgs., c.l., dlvd. New York ... 100 lbs.	41.10	–
USP special, 100-lb. bgs., c.l., dlvd. New York ... 100 lbs.	46.60	–
Dextrose, hydrated coml. bgs., c.l., dlvd. New York ... 100 lbs.	24.25	–
Western zone ... 100 lbs.	25.60	–
Diacetone alcohol, acetone free, tanks, dlvd. ... lb.	.62	–
Diacetyl, flavor grade, dms. ... lb.	9.25	16.00
Diammonium phosphate, fert. grade, min. 18% N, 46% P. bulk, c.l., f.o.b. Fla. works ... ton	140.00	145.00
Diammonium phosphate, feed grade, 18% N, 20% P, bulk. c.l., f.o.b. Fla. works ... ton	240.00	–
bgs., same basis ... ton	250.00	–
Diammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald. ... 100 lbs.	52.50	–
food grade, bgs., c.l., t.l., same basis ... 100 lbs.	57.75	–
2,4-Di-tert-amylphenol, min. 95.5%, dms., c.l., t.l., works ... lb.	1.04	–
tanks, works ... lb.	.97	–
Diarylide yellow, OT, (yellow 14), dms., frt. alld ... lb.	6.20	–
o-Dianisidine dihydrochloride, 100%, MW 244, dms., t.l., dlvd. ... lb.	4.25	–
2,6-Di-tert-Butyl-p-Cresol (see Butylated hydroxytoluene)		
Dibutyl fumarate, tanks, f.o.b. works ... lb.	.77	.86
Dibutyl maleate tanks, f.o.b. works ... lb.	.63	.64
Dibutyl phthalate, tanks, works ... lb.	.54	.60
Dibutyl sebacate tanks, works ... lb.	1.72	1.89
Dibutylamine, dms., c.l., dlvd. ... lb.	1.12	–
tanks, same basis ... lb.	1.06	–
2-5-Dichloroaniline, flake, dms., works ... lb.	2.00	–
fused, dms., works ... lb.	1.80	–
3,4-Dichloroaniline, tech. 88%, solid, dms., c.l., t.l., f.o.b. works ... lb.	1.46	1.57
o-Dichlorobenzene, tech., 80%, dms., c.l., t.l., dlvd. ... lb.	.52	–
tanks, same basis ... lb.	.46	–
98% refd., dms., c.l., same basis ... lb.	.54	–
tanks, same basis ... lb.	.47	–
p-Dichlorobenzene, graded, 300-lb. dms., t.l., f.o.b., frt. equald. lb.	.51	.52
tanks, liq., same basis ... lb.	.43	.47
2,6-Dichloro-4-nitroaniline, dms., 10,000 lbs. or more, works ... lb.	3.30	–
Dichlorophenoxyacetic acid (see 2,4-D).		
Dicyclohexylamine, dms., c.l., t.l., f.o.b. ... lb.	1.35	–
tanks, same basis ... lb.	1.25	–
Dicyclohexyl phthalate, bgs., c.l., t.l., dlvd. ... lb.	1.25	–
Dicyclopentadiene, high-purity, 97-98%, tanks, works ... lb.	.35	–
Diethanolamine, tanks, frt. alld. ... lb.	.44	.47
Diethanolamine lauryl sulfate, tanks, frt. alld. ... lb.	.41	–
DDVP (see Dimethyl dichlorovinyl phosphate).		
Diethyl barbituric acid (see Barbital).		
Diethyl carbonate, tankwagons, f.o.b. works ... lb.	1.40	–
Diethyl ethanolamine CP dms., c.l., dlvd. ... lb.	1.18	–
tanks, dlvd. ... lb.	1.10	–
Diethyl ethanolamine tech., 8c. per lb. lower.		
Diethyl oxalate, dms., c.l., f.o.b. works ... lb.	1.80	–
Diethyl phthalate, tanks, f.o.b. ... lb.	.69	.86
odorless cosmetic grades, t.l., works ... lb.	.97½	–
Diethyl sulfate, tanks., frt. alld. E. ... lb.	.69	–
Diethyl thiourea, dms., c.l., t.l., works ... lb.	2.48	–
Di-2-ethylhexyl adipate (see Dioctyl adipate).		
Diethyl toluamide. 95-97% min. meta isomer. dms., t.l., f.o.b. works ... lb.	2.76	–
N,N-Diethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. ... lb.	3.18	–
tanks, same basis ... lb.	3.10	–
Diethylamine, dms., c.l., dlvd. ... lb.	1.16	–
tanks, same basis ... lb.	1.02	–
N,N-Diethylaniline, dms., c.l., t.l., f.o.b. works ... lb.	1.83	–
tanks same basis ... lb.	1.75	–
Diethylbenzene, tanks, f.o.b. works lb.	.98	–
Di-2-ethylhexyl azelate (see Dioctyl azelate).		
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).		
Diethylene glycol, tanks, dlvd. E. ... lb.	.29½	.31½
Diethylene glycol monobutyl ether, dms., c.l., frt. alld. E. ... lb.	.65	–
tanks, frt. alld. E. ... lb.	.57	–
Diethylene glycol monoethyl ether, dms., c.l., frt. alld. E. ... lb.	.64	–
tanks, frt. alld. E. ... lb.	.58	–
Diethylene glycol monomethyl ether, dms., c.l., frt. alld. ... lb.	.62	–
tanks, frt. alld. ... lb.	.54	–
Diethylene glycol monobutyl ether acetate, dms., c.l., dlvd. E. ... lb.	.80	–
tanks, dlvd. E. ... lb.	.72	–
Diethylene glycol monoethyl ether acetate, dms., c.l., frt. alld. E. lb.	.80	–
tanks, frt. alld. ... lb.	.72	–
Diethylenetriamine, tanks, f.o.b. works ... lb.	1.60	1.61
Diethylenetriamine pentaacetic acid, pentasodium salt solution, tank- cars/tanktrucks, frt-equalized ... lb.	.45	–
Digitoxin, USP, imp., bots ... gram	2.80	3.00
Diglycol laurate, dms., ton lots ... lb.	.32½	–
Diglycol stearate, dms., t.l. ... lb.	.62	.73
Dihydrazine sulfate, dms., works ... lb.	1.10	1.25
Dihydrostreptomycin sulfate, bulk kilo.	48.00	–
Dihydroxyacetone, 50-kilo lots, works ... kilo.	40.00	–
Di-isobutyl ketone, tanks, dlvd ... lb.	.60	–
Di-isobutyl phthalate tanks, dlvd. E. lb.	.55	.61
Di-isobutylene, tanks, f.o.b. Houston ... lb.	.37	–
Di-isodecyl phthalate, tanks, dlvd ... lb.	.40	.41
Di-isononyl phthalate, tanks, dlvd. ... lb.	.40	–
Di-iso-octyl azelate, tanks, dlvd. E. ... lb.	.99	1.07
Di-iso-octyl phthalate, tanks. dlvd. ... lb.	.40	–
Di-isopropanolamine, dms., c.l., frt. alld. ... lb.	.66½	–
tanks, same basis ... lb.	.58½	–
Di-isopropylamine, dms., c.l. dlvd. ... lb.	1.17	–
tanks, same basis ... lb.	1.07	–
Dilauryl 3,3-thiodipropionate, dms., t.l., frt. alld. ... lb.	1.89	–
Dill oil, USP, dms. ... lb.	7.00	8.25
Dimethyl anthranilate, dms. ... lb.	15.80	–
Dimethyl benzyl carbinyl acetate, 25-lb. dms. ... lb.	6.95	–
Dimethyl carbonate, dms, t.l., f.o.b. works ... lb.	.90	–
Dimethyl dichlorovinyl phosphate, 55-gal. dms., f.o.b. ... lb.	1.80	1.90
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E. ... lb.	1.15	1.19
tanks, dlvd. E. ... lb.	1.07	1.11
Dimethyl ether, aerosol grade, tanks, dlvd ... lb.	.38	–
Dimethyl phthalate, tanks, f.o.b works ... lb.	.65	–
Dimethyl sebacate, tanks, f.o.b works ... lb.	2.48	2.60
Dimethyl sulfate, ref. dms., c.l., f.o.b. works ... lb.	.57	–
tanks ... lb.	.46	–
Dimethyl sulfide, tanks, works ... lb.	.59	–
Dimethyl sulfoxide, tanks, works ... lb.	.78	–
Dimethylacetamide, bulk f.o.b. works ... lb.	.87½	–
Dimethylamine, 25% soln., tanks, frt. equald., 100% basis ... lb.	.63½	–
40% soln., tanks, frt. equald., 100% basis ... lb.	.63½	–
anhyd., tanks, frt. equald. ... lb.	.54½	–
N,N-Dimethylaniline, t.l., f.o.b. ... lb.	1.09	–
t.l. dms. ... lb.	1.11	–
N,N-Dimethylformamide, dms., c.l., t.l., f.o.b., works ... lb.	.57	–
tanks, same basis ... lb.	.49	–
2,4-Dinitroaniline. tons-lots, f.o.b. ... lb.	1.22	–
Dinitroaniline, orange toner, CP, bgs., dlvd. E. of Rockies ... lb.	5.20	–
2,4-Dinitrochlorobenzene, crystallizing at 47°, t.l., f.o.b. Charlotte, N.C. ... lb.	.96	–
2,4-Dinitrophenol, 250-lb. dms., f.o.b. Charlotte, N.C. ... lb.	1.95	–
Dinitrotoluene, mix., tech. f.o.b. works ... lb.	.30	.43
2,4-Dinitrotoluene, dms., c.l., t.l., works ... lb.	1.26	–
tanks, works ... lb.	1.20	[illegible]
Dioctyl adipate, tanks, frt. alld. E. ... lb.	.61	[illegible]
Dioctyl azelate, tanks, dlvd. E. ... lb.	.99	[illegible]
Dioctyl phthalate, tanks, dlvd. ... lb.	.40	–
Dioctyl sebacate, 99%, tanks, f.o.b. works ... lb.	1.47	–
1,4-Dioxane, tanks, frt. alld. E. ... lb.	1.13	–
t.l., same basis ... lb.	1.21	–
Dipentaerythritol, bgs., c.l., t.l., dlvd. E. ... lb.	1.43	–
Dipentene steam-dist., tanks, f.o.b. Fla. works ... lb.	.25	[illegible]
sulfate turpentine derived, tanks ... lb.	.26	–
Dip oil (see Tar acid oil).		
Diphenhydramine hydrochloride, USP, dom., 1,000-kilo lots, dms., dlvd. ... kilo.	20.00	24.00
Diphenyl, 99.9%, bgs., c.l., t.l., works ... lb.	[illegible]	[illegible]
tanks, works ... lb.	[illegible]	[illegible]

Diphenyl oxide, tech. grade, tanks ... lb.	1.11	1.20
Diphenylamine, refd., flake, bgs., t.l., works, frt. equald. ... lb.	1.25	–
molten, tanks, works ... lb.	1.00	–
octylated, flake, bgs., t.l., f.o.b. works ... lb.	7.68	–
Diphenylguanidine, bgs., t.l., frt. alld. ... lb.	2.52	
Diphenylhydantoin-sodium USP, dms. ... lb.	5.00	5.60
Diphenylmethane 4,4,-di-isocyanate, polymeric, bulk, c.l., min. frt. alld. ... lb.	.91	–
Dipropylene glycol, tanks, frt. alld. ... lb.	.45	–
Dipropylene glycol monomethyl ether, dms., c.l., dlvd. ... lb.	.54	–
tanks, same basis ... lb.	.46	–
Di-o-tolylguanidine, powd., dms., t.l., frt. alld. ... lb.	2.92	–
Di-o-tolylthiourea, tech., solid, dms., t.l., frt. alld ... lb.	3.11	–
Ditridecyl phthalate, tanks, dlvd. ... lb.	.64	.65
Diundecyl phthalate, tanks, dlvd. ... lb.	.61	.65
Divinylbenzene, 100% basis, tanks works ... lb.	2.75	2.60
dms, 100% basis ... lb.	3.00	2.70
1-Dodecanol, syn., tanks, f.o.b. ... lb.	.76½	–
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. ... lb.	.88	–
Dodecylbenzene (see Detergent Alkylate).		
Dodecylphenol, tanks, min. frt. alld. E ... lb.	.48	.53
Dyes, coaltar, certified colors for food, drugs and cosmetics, 100 lb. and over. frt. prepaid or alld.		
Blue, FD&C. No. 1 ... lb.	21.20	22.60
No. 2 ... lb.	29.15	29.22
Green, FD&C, No. 3 ... lb.	49.50	65.00
Red, FD&C, No. 3 ... lb.	24.00	24.50
Yellow, FD&C, No. 5 ... lb.	7.45	7.85
No. 6 ... lb.	6.45	6.75
Dyes, coaltar, certified colors for drugs and cosmetics. 100-lb. lots dlvd.		
Green, D&C, No. 5 ... lb.	38.50	–
No. 6 ... lb.	42.80	–
Red, D&C, No. 4 ... lb.	18.85	–
No. 17 ... lb.	38.90	–
No. 19 ... lb.	38.25	–
No. 22 ... lb.	12.46	–
No 28 ... lb.	59.95	–
No 33 ... lb.	48.95	–
Yellow, D&C. No. 7 ... lb.	21.00	–
No 8 ... lb.	20.55	–
No. 10 ... lb.	48.80	48.85
No. 11 ... lb.	35.25	–
Dyes, coaltar, for general use in cloth and paper dyeing (by Color Index Name), f.o.b. works		
A Bk 1 Blue black ex. conc. ... lb.	5.75	–
Dyes, A Bl 9 Blue 2G ... lb.	5.46	–
A Bl 45 Alizarine Blu SAP 150% ... lb.	19.85	–
A Bl 90 Alizarine Br. Cy G ... lb	14.13	–
A Bl 113 Navy 5R ... lb.	6.55	–
A Gr 16 Gast 2G 333% ... lb.	22.12	–
A Or 7 11 ... lb.	3.72	–
A Or 8 RO Ex. Conc ... lb.	4.00	–
A Or 10 Wool Or G ... lb.	4.30	–
A Or 74 Metallized Or GNA ... lb	6.15	–
A R 2G ... lb.	5.13	–
A R 14 Azo Rubine 133% ... lb.	8.85	–
A R 18 Scarlet 4R Conc. ... lb.	5.45	–
A R 88 Fast Red A. Conc. ... lb.	6.85	–
A R 151 Silk Red 3B Conc. ... lb.	4.50	–
A V 17 5BNS Conc. ... lb.	9.75	–
A V 49 4BNS Conc. ... lb.	12.22	–
A Y 17 Fast Light Yell 2G ... lb.	5.69	–
A Y 23 Tartrazine Ex Conc. ... lb.	6.18	–
B Bl 9 Zinc Free ... lb.	16.40	–
B Br 4 Bismark Brown R Ex. Conc. lb.	4.42	–
B G 1 Jade Crystals ... lb.	9.56	–
B Gr 4 Malachite Green Crystal. ... lb.	6.90	–
B V 1 Methyl Violet Crystals ... lb.	6.80	–
B V 10 Rhodamine B Ex. ... lb.	10.95	–
B Y 2 Bond Yell SFA 150% ... lb.	10.10	–
D Bl 1 Sky Blue 6B Conc. ... lb.	4.62	–
Ex. Conc. 300% ... lb.	9.25	–
D Bl 8 Azurine G Conc. ... lb.	9.45	–
D Bk 22 Fast Black GR ... lb.	2.85	–
Fast Black GR 150% ... lb.	4.28	–
D Br 230 Resin Fast Brown BRNB 200% ... lb.	7.23	–
D Gr 26 Resin Fast Green GL ... lb.	9.15	–
D R 24B Ex. Conc. ... lb.	7.98	–
D R 31 Brilliant- Red 12B Conc. ... lb.	6.16	–
D R 80 Fast Red 8BLN ... lb.	6.15	–
D R 81 Paper Red 8BLP ... lb.	6.85	–
D R 251 Fast Scarlet AV ... lb.	6.25	–
D Or 102 Fast Orange WSP Liq. ... lb.	2.47	–
WS. Conc. 150% ... lb.	11.25	–
D Y 4 Brilliant Paper Yell 3GX 125% ... lb.	4.69	–
Brilliant Paper Yell 3GX Liq. ... lb.	1.75	–
D Y 11 Stilbene Yellow GA. Ex. Conc. ... lb.	3.03	–
D Y 41 Fast Yellow RGL Conc. 200% ... lb.	9.75	–
D Y 27 Resin Fast Yellow L5G ... lb.	14.40	–
Ds R 1 Scarlet BA ... lb.	4.26	–
Ds R 91 Pink REL 200% ... lb.	21.00	–
Ds Y 3 Yellow G ... lb.	3.65	–
Ds Y 54 Yellow 3G ... lb.	6.84	–
Ds Or 3 Orange GRA ... lb.	4.91	–
Ds Or 37 Orange OB ... lb.	3.77	–
Ds V 1 4RN Paste ... lb.	7.85	–
Ds V 26 Bordeaux BV 200% ... lb.	17.25	–
Ds Bl 27 Blue BGLF ... lb.	10.05	–
Ds Bl 102 Blue GFDA 300% ... lb.	22.80	–
50% Paste ... lb.	4.10	–
V G 1 Jade Green Double Paste ... lb.	5.50	–
V Bk 25 Olive TA Paste ... lb.	5.85	–

E

Endrin, tech., 95-99%, dms., t.l. ... lb.	7.00	–
Ephedrine, syn. anhyd., USP, 80-oz. lots ... oz.	1.25	–
Ephedrine hydrochloride, NF, cryst., less than 1,000 kg. ... kilo	38.25	40.25
Ephedrine sulfate, USP, cryst., dms., less than 1,000 kilos ... kilo	43.00	45.25
Epichlorohydrin, tanks, dlvd. ... lb.	.86	–
Epinephrine base, syn., USP, bots., 100-gram lots ... gram	.60	–
Epoxy resin, liquid, bulk tanks, dlvd. ... lb.	1.31	1.41
Solid, bgs., t.l. ... lb.	1.28½	1.33½
Epsom salt (see Magnesium sulfate).		
Erythorbic acid, powd., gran., 100 lb. dms., t.l. or mixed t.l. f.o.b. works ... lb.	4.10	4.25
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. lb.	.75	–
Ester gum, wood-rosin type, dms., c.l., same basis ... lb.	.43	.46
Ethyl acetate, syn., 85-88%, tanks, dlvd. ... lb.	.41	.41½
99%, tanks, dlvd. ... lb.	.41½	.42½
Ethyl acetoacetate dms., c.l., dlvd. ... lb.	1.13	–
tanks, dlvd. ... lb.	1.05	–
Ethyl acrylate, tanks, frt alld. ... lb.	.66	–
Ethyl alcohol, syn., 190 pf., USP tax free, tanks, dlvd. E. ... gal.	1.55	–
Ethyl alcohol, absolute, 200 pf., tax free prices 12c. higher than 190 pf., tax free.		
Ethyl alcohol, fermentation, tanks, f.o.b. works ... gal.	1.08	1.28
Price range attributable to various state tax incentives.		
Ethyl alcohol, denat. (see Denatured alcohol, ethyl).		
Ethyl p-aminobenzoate, NF (see Benzocaine).		
Ethyl benzoate, dms ... lb.	1.35	1.50
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E. ... lb.	.76	–
Ethyl butyrate, dms. ... lb.	1.35	1.50
Ethyl cellulose, standard vis., 7 cps. bgs., t.l., frt. equald. E. ... lb.	4.55	–
standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. E. ... lb.	4.17	4.22
medium vis., 50, 70, 100 cps., t.l., frt. equald. E. ... lb.	4.25	–
USP vis., 7 cps bgs., t.l., frt. equald. E ... lb.	4.88	–
USP 10,20,45,100 bgs., t.l., frt. equald. E ... lb.	4.59	4.69
VSP (medium) 50,70,100 bgs., t.l., Frt. equald. E. ... lb.	4.51	–
Ethyl chloride, tech., cyls., frt. alld. ... lb.	.26	.26½
tanks, frt. alld. ... lb.	.24	.26½
Ethyl cinnamate, dms. ... kilo	41.00	–
Ethyl ethanolamines, mixed. dms., t.l., dlvd. E. ... lb.	1.23	–
tanks, dlvd. E. ... lb.	1.15	–
Ethyl ether, refined, tanks, f.o.b. ... lb.	.46	–
Ethyl hexanoate, dms. ... lb.	4.25	4.75
2-Ethylhexoic acid, dms., c.l., t.l., dlvd. E. ... lb.	.63	–
tanks dlvd. E. ... lb.	.57	–
2-Ethylhexyl acrylate, straight or mixed, tanks, frt. alld. E. ... lb.	.79.5	–
2-Ethylhexyl alcohol, tanks, dlvd ... lb.	.35	–
Ethyl iodide, cbys., works ... lb.	6.25	–
Ethyl linalool, syn. 55-gal. dms ... lb	10.60	–
Ethyl linalyl acetate, syn., 55-gal dms. ... lb	10.85	–
Ethyl methacrylate, tanks, frt equald. ... lb.	1.06	–
n-Ethyl morpholine, dms., t.l., frt. alld. ... lb	2.00-	
tanks, same basis ... lb.	1.92	–
n-Ethyl-a-naphthylamine, dms., works ... lb.	1.04	–
Ethyl oxalate (see Diethyl oxalate).		
Ethyl parathion (see Parathion, ethyl).		
Ethyl silicate dist. (see Tetraethyl orthosilicate).		
Ethyl silicate, 40% available SiO_2, dms., t.l., f.o.b. works ... lb.	1.45	1.46
tanks, f.o.b. works. ... lb.	1.39	–
N-Ethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. ... lb.	3.18	–
tanks, same basis ... lb.	3.10	–
N-Ethyl-o-toluidine, dms ... lb.	2.85	2.90
Ethyl vanillin 100 lb. dms., 500 lbs. or more ... lb.	13.50	–
25 lb. dms., 500 lbs. or more ... lb.	13.75	–
100 lb. dms., less than 500 lbs. ... lb.	14.00	14.50
Ethylamine (see Mono-Di- and Tri-)		
N-Ethylaniline, dms., c.l., t.l., f.o.b. works ... lb.	1.66	–
tanks, same basis ... lb.	1.58	–
Ethylbenzene, bulk, f.o.b. Houston, Tex. ... lb.	.22	.23
Ethylene, contract, dlvd. ... lb.	.18	.18½
Ethylene brassylate, dms. ... lb.	16.00	18.25
Ethylenediamine, 99%, tanks, f.o.b. works ... lb.	1.30	1.305
Ethylenediamine dihydriodide ... lb.	7.55	9.25
Ethylenediamine tetraacetic acid, tetrasodium salt, soln., t.c., t.t., frt. equald. ... lb.	.36½	–
Ethylene dibromide dms., c.l., frt., equald. ... lb.	.38	.46
tanks, frt. equald. ... lb.	.32	.42
Ethylene dichloride, tanks, f.o.b. works ... lb.	.17	.17¼
Ethylene glycol, indust., tanks, frt. alld. ... lb.	.31	–
Ethylene glycol, monobutyl ether, tanks, dlvd. E. ... lb.	.41½	–
Ethylene glycol monoethyl ether, tanks, dlvd. E ... lb.	.51	–
Ethylene glycol monomethyl ether, tanks, dlvd. E ... lb.	.34	–
Ethylene glycol monobutyl ether acetate, tanks, frt. alld. E. ... lb.	.64½	–
Ethylene glycol monoethyl ether acetate, tanks, ft. alld., E. ... lb.	.55½	–
Ethylene glycol monomethyl ether acetate, tanks, frt. alld. E. ... lb.	.43	–
Ethylene oxide, tanks f.o.b. ... lb.	.35	.45
Ethylene trichloride (see Trichloroethylene).		
Eucalyptol, NF, dms. Portuguese ... kilo.	7.50	–
Eucalyptus Citriadora Oil, Chinese kilo	3.05	–
Eugenol, USP, dms. ... kilo	7.55	–

F

Fennel oil, sweet, USP, cns. ... lb.	9.00	–
Fennel seed, Egypt ... lb.	.37	–
Indian ... lb.	.80	.82
Fenugreek seed, Indian, bgs. ... lb.	.25	.32
Ferric chloride anhyd., tech., 350-lb., dms., c.l., works ... 100 lbs.	36.00	–
Ferric chloride, 42 Be. photo grade dms., c.l., works ... 100 lbs.	9.10	–
Ferric chloride, sewage grade, 100 percent basis, f.o.b. works, tank works ... ton	176.00	255.00
Ferric nitrate, cryst., dms., t.l., f.o.b. lb.	.84	–
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works ... lb.	1.65	–
Ferric oxides (see Iron Oxides).		
Ferric phosphate, FCCg insoluble powder, dms, 10,000 lbs. ... lb.	1.10	1.15
Ferric pyrophosphate, soluble, purif., pearls, 50-lb. dm. ... lb.	1.11	–
Ferric resinate, precip., 6.75% Fe. dms., ton lots frt. alld. ... lb.	.45	–
Ferric sulfate, partly hydrated, 100-lb. bgs., c.l., works ... ton	141.00	–
bulk, works ... ton	117.00	–
Ferric ammonium citrte, NF, brown, green gran. 100 lb. dms., 2,000 lb. min., f.o.b. shipping pt. ... lb.	2.00	2.95
2c. per pound surcharge for shipments W. of Denver		
Ferric-ammonium oxalate, fine gran., 250-lb. dms., t.l., f.o.b. works. E. ... lb.	.42	–
Ferric hydroxyethylene diaminetriacetic acid, industrial grade, sodium salt, soln., 4.5% Fe, t.c., t.t., f.o.b works ... lb.	.55	–
agricultural grade, sodium salt solution, 5% Fe, t.c., t.t., f.o.b. works ... lb.	.64	–
Ferrous fluoborate liq. conc., dms., t.l., works, frt. equald. ... lb.	.64	–
Ferrous gluconate, NF, t.l., works E. lb.	2.25	–
Ferrous naphthenate, liq., 6%, Fe, dms., dlvd. ... lb.	1.17	–
Ferrous sulfate, moist, bulk, t.l. f.o.b. works ... ton	30.00	–
heptahydrate, gran., bulk, t.l., f.o.b. works ... ton	145.00	150.00
monohydrate, gran., bulk, t.l., f.o.b. works ... ton	170.00	180.00
USP, powd., 400-lb. dms. ... lb.	.49	–
cryst., 250-lb. dms ... lb.	.61	–
Fir oil, Canada dms. ... lb	10.00	–
Siberia, dms ... lb.	12.75	–
Fish oil, refd., alkali, tanks, c.l. ... lb.	.29	–
kettle-bodied, tanks ... lb	.32	.36
light, cold-pressed, dms., c.l. ... lb.	.34	–
tanks ... lb.	.28	–
Fishmeal, dom., menhaden, 60% protein grd., bulk, f.o.b. Atlantic port ... ton	295.00	–
f.o.b. Gulf port ... ton	290.00	–
imp., Chilean, 65% protein min., bulk, c.l., t.l., ex whse., f.o.b Atlantic and Gulf ports ... ton.	285.00	–
Fluoboric acid, dms., t.l., works, frt equald. ... lb	.70	–
Fluorocarbon, No. 11 bulk, tanks, delvd ... lb.	.57	.64
No. 12, bulk, same basis ... lb.	.68	.74
No. 22, bulk, same basis ... lb.	1.05	1.14
No. 113, bulk, same basis ... lb.	.89	.93½
No. 114, bulk, same basis ... lb.	1.02	1.08
Fluosilicic acid (see Hydrofluosilicic acid).		
Formaldehyde, 37% methanol free (uninhibited) dlvd., gulf ... lb.	.088	.0905
44-45% (1% methanol) tanks, dlvd. ... lb.	.1015	.1065
37% (inhibited 7% methanol, dlvd. ... lb.	.0945	.1025
37% (inhibited 11-15% methanol) tanks, dlvd. ... lb.	.1055	.1060
Formamide, tanks, f.o.b. ... lb.	.39	–
dms., same basis ... lb.	.44	–
Formic acid 90% tanks, f.o.b. works ... lb.	.36½	–
95% dms., c.l., works ... lb.	.51½	–
Fructose, cryst., 18,000 kilos or more, dms. ... lb.	.90	1.03
Fumaric acid, food grade, bgs. t.l., frt. equald. E. ... lb.	.75½	.77½
tech. grade, bgs., t.l., f.o.b. frt. equald. ... lb.		.62½
Furfural, tanks, f.o.b. Cedar Rapids, Iowa, and Belle Glade, Fla. lb.	.75	–
Furfuryl alcohol, tanks, f.o.b. Memphis, Tenn. and Omaha, Neb. ... lb.	.72	–

G

G salt, dms., frt. alld. 100% basis ... lb.	2.30	–
Gallic acid, 400-kilo lots ... kilo	23.05	–
Garlic oil, dms., Egyptian ... kilo	100.00	110.00
Gelatin, edible, 100 AOAC test, dms., l.t.l., dlvd. ... lb.	1.50	1.75
125 AOAC test, dms., l.t.l. ... lb.	1.75	1.85
150 AOAC test, dms., l.t.l. ... lb.	1.85	1.95
175 AOAC test, dms., l.t.l. ... lb.	1.95	2.05
200 AOAC test, dms., l.t.l. ... lb.	2.05	2.15
225 AOAC test, dms., l.t.l. ... lb.	2.10	2.25
250 AOAC test, dms., l.t.l. ... lb.	2.20	2.35
275 AOAC test, dms., l.t.l. ... lb.	2.30	2.45
300 AOAC test, dms., l.t.l. ... lb.	2.50	2.65
Gentian violet (see Methyl roseaniline chloride).		
Geraniol, syn., 90-92%, dms. ... lb.	5.25	–
nat., 90-92%, dms. ... lb.	3.50	–
syn. 96-98%, dms. ... lb.	5.75	–
Geranium oil, Moroccan ... lb.	46.00	–
Bourbon ... lb.	66.00	–
Chinese ... lb.	23.00	–
Egypt ... lb.	22.00	–
Turkish (see Palmarosa oil).		
Geranyl acetate, dms. ... lb.	5.44	6.00
nat., dms. ... lb.	10.95	–
Geranyl formate, syn., dms. ... lb.	6.60	–
nat., dms. ... lb.	15.95	–
Gilsonite, g.p., bulk, c.l., f.o.b. Bonanza, Utah ... ton	180.00	–
selects, same basis ... ton	180.00	–
Ginger, Cochin, bgs. ... lb.	.63	.65
Chinese sliced ... lb.	.56	.70
Ginger oil, Chinese ... kilo	35.00	44.00
Indian ... kilo	45.00	48.00
Ginger oleoresin, NF, bots. ... lb.	30.00	–
Glauber's salt (see Sodium sulfate).		
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works ... lb.	.50	–
tanks, same basis ... lb.	.44	–

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Glue, bone, extracted, green, jellygrams, bgs., c.l. ... lb.	–	–
85 jellygrams, bgs., c.l., f.o.b. ... lb.	.86	–
115 jellygrams, bgs., c.l., f.o.b. ... lb.	.78	–
135 jellygrams, bgs., c.l., f.o.b. ... lb.	.77	–
164 jellygrams, bgs., c.l., f.o.b. ... lb.	.79	–
192 jellygrams, bgs., c.l., f.o.b. ... lb.	.87	–
220 jellygrams, bgs. c.l. f.o.b. ... lb.	.93	–
Glue, hide,		
108 jellygrams, bgs., t.l., f.o.b. ... lb.	.80	–
135 jellygrams, bgs., t.l., f.o.b. ... lb.	.85	–
164 jellygrams, bgs., t.l., f.o.b. ... lb.	.90	–
192 jellygrams, bgs., t.l., f.o.b. ... lb.	.95	–
222 jellygrams, bgs., t.l., f.o.b. ... lb.	1.00	–
251 jellygrams, bgs., t.l., f.o.b. ... lb.	1.05	–
283 jellygrams, bgs., t.l., f.o.b. ... lb.	1.10	–
315 jellygrams, bgs., t.l., f.o.b. ... lb.	1.15	–
347 jellygrams, bgs., t.l., f.o.b. ... lb.	1.20	–
379 jellygrams, bgs., t.l., f.o.b. ... lb.	1.25	–
411 jellygrams, bgs., t.l., f.o.b. ... lb.	1.30	–
444 jellygrams, bgs., t.l., f.o.b. ... lb.	1.35	–
477 jellygrams, bgs., t.l., f.o.b. ... lb.	1.40	–
Glutamic acid, 99½% dms., 100-lb. lots, frt. alld. ... kilo	6.65	–
Glycerine, nat., refd., USP, CP 99½% tanks, dlvd. ... lb.	.89½	–
USP, CP, nat. 96%, tanks, dlvd. ... lb.	.87¾	–
Syn. 96%, tanks dlvd. ... lb.	.89¼	–
Syn. 99.5%, tanks dlvd. ... lb.	.91	–
Glycine (see Aminoacetic acid).		
Glyceryl guaiacolate. 100-lb. fib. dms. f.o.b. ... kilo	14.50	–
Glycolic acid (see Hydroxyacetic acid)		
Glyoxal 40% soln., bulk, tanks, dlvd. ... lb.	.44½	–
Grapefruit oil, Fla., dms. ... lb.	3.00	–
Calif., dms. ... lb.	3.00	–
Israeli ... lb.	3.00	–
Graphite, amorph, powd., bgs., dms., ex whse. ... lb.	.16	.40
cryst., 88-90%, powd., bgs., dms., ex whse. ... lb.	.30	.60
Graphite, cryst., 90-92%, powd., bgs., dms., ex whse. ... lb.	.40	.75
95-96% powd., bgs., dms., ex whse. ... lb.	.50	.90
Graphite, amorph., cryst., 97% and up, powd., bgs., dms., ex whse. ... lb.	.80	1.20
Graphite, flake, No. 1, 90-95%, bgs., dms., ex whse. ... lb.	.65	.75
No. 2, 90-95%, bgs., dms., ex whse. ... lb.	.65	.75
Grease (See Oils, Fats & Waxes market report)		
Grease oil (See Lard oil).		
Guaiacol, tech., 500-lb dms., 24,000 lb. min., f.o.b. Wallingford, Conn. ... lb.	2.70	–
Guaiacwood oil, dms. ... lb.	3.75	–
Guar gum, edible, bgs., c.l., f.o.b. ship't. pt. ... lb.	.50	.75
Indust., bgs., high viscosity, c.l., same basis ... lb.	.50	.85

H

Heliotropin, dms. ... lb.	8.00	8.25
Hemlock oil (see Spruce oil).		
Henbane leaves, bls. ... lb.	.56	–
Heptane, indust., tanks, f.o.b. Beaumont, Tex. ... gal.	1.07	–
95%, tanks, f.o.b. Houston, Tex. ... gal.	1.18	–
Heptanoic acid, syn., tanks, f.o.b. ...	.85	–
1-Hexadecanol, syn., tanks, f.o.b. ... lb.	.43½	–
Hexahydrophthalic anhydride, tech. dms., l.t.l., f.o.b. works ... lb.	1.42	–
Hexamethylenetetramine, gran. bgs., c.l., t.l., works ... lb.	.55	–
gran. dms., c.l., t.l., works ... lb.	.59	–
pdr. bgs., c.l., t.l., works ... lb.	.60	–
powd. dms, c.l., t.l., works ... lb.	.63	–
Hexane, indust., tanks, works ... gal.	1.01	1.15
95%, tanks, f.o.b. Houston, Tex. ... gal.	1.12	–
1-Hexanol, syn., tanks, f.o.b. ... lb.	.50	–
Hexyl alcohol, mixed isomers, tanks ... lb.	.32	–
p-Hexyl methacrylate, dms., c.l., works ... lb.	.75½	–
Hexylene glycol, tanks, dlvd. ... lb.	.50	–
Hexylresorcinol, USP, dms., 25-lb. lots or more, frt. alld. ... lb.	30.00	–
Homatropine hydrobromide, USP, 10-100-oz. lots, bots. ... oz.	10.25	11.30
Homatropine methylbromide, USP, 10-250 oz. lots, bots. ... oz.	9.70	10.70
Horehound herb, bls. ... lb.	.25	.28
Hydrazine hydrate, 85%, t.t., frt. alld. ... lb.	1.54	–
55-gal. dms., t.l., frt. alld. ... lb.	1.61	–
Hydriodic acid, purif., 47%-57%, 2-cbys., f.o.b. works ... lb.	7.50	–
Hydroabietyl alcohol, tech., solid, dms., c.l., f.o.b. zone 1 ... lb.	.85	–
tanks, f.o.b. zone 1 ... lb.	.80	–
Hydrobromic acid, 48% dms., c.l. t.l., f.o.b. ... lb.	.38½	–
Hydrochloric acid, anhyd. (see Hydrogen chloride).		

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Hydrochloric acid, 20° Be, tanks, works, East ... ton	55.00	65.00
Midwest ... ton	60.00	70.00
Gulf Coast ... ton	57.00	-
West Coast ... ton	90.00	105.00
22° acid, same basis, East ... ton	68.00	76.00
Midwest ... ton	66.00	70.00
Gulf Coast ... ton	63.50	-
West Coast ... ton	100.00	115.00
NOTE: Prices vary and are either freight collect freight equalized depending on producer and location.		
Hydrocortisone acetate, micronized, dms., 25 kilos or more . gram	.70	-
Hydrocortisone, alcohol, micronized, dms., 25 kilos or more . gram	.70	-
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)		
Hydrofluoric acid, aqueous. 70% tanks., f.o.b. frt. equald ... 100lbs.	43.00	-
Hydrofluosilicic acid, 15-gal. dms., t.l., works, 30% basis ... ton	-	-
tanks, 100% basis, works ... ton	190.00	210.00
Hydrogen bromide, anhyd. cyls., extra, 30,000-lbs., f.o.b. works . lb.	7.00	-
Hydrogen chloride, anhyd.. 50-lb. cyls., c.l., works ... lb.	.65	-
600-lb. cyls, c.l., same basis . lb.	.62	-
Hydrogen chloride, anhyd., tube trailers, seller's trailer, min. 100,000 lbs. a year ... lb.	.37	-
tube trailers, buyer's trailer ... lb.	.27	-
Hydrogen chloride anhyd., tanks, works ... ton	270.00	-
Hydrogen cyanide, liq., 99.5%, tanks, works ... lb.	.50	-
Hydrogen fluoride, anhyd., tank cars c.l., f.o.b., frt. equald ... lb.	.6875	-
Hydrogen peroxide, 35% tech., tanks, works, ft. equald ... lb.	.2325	-
50% tankcars, frt. equald ... lb	.3225	-
70%, tankcars frt. equald ... lb.	.45	-
Hydrogen sulfide, liq., 99.25% min. seller's tanks, works ... lb.	.12	.13
170 lb. cylinders ... lb.	2.27	-
Hydroquinone, photo grade, consumers c.l., t.l., divd ... lb.	2.54	-
tech., dms. c.l., divd ... lb.	1.95	-
Hydroxyacetic acid, tech., 70%, tanks, Belle, W. Va. ... lb.	.49½	-
Hydroxylammonium sulfate, dms., t.l., f.o.b. ... lb.	.83	-
p-Hydroxybenzene sulfonic acid (see p-Phenolsulfonic acid).		
Hydroxybutyl methylcellulose (visc. 12,000 cps.) 50 lb. bags, tl., cl. 30,000 lb. min., divd., zone 1 ... lb.	2.10	-
Hydroxycitronellal dimethyl acetal, dms ... lb.	16.65	-
p-Hydroxydiphenylamine, dms., t.l., f.o.b. works ... lb.	4.10	-
Hydroxycitronellal,		
natural, dms. ... lb.	9.40	-
pure, dms. ... lb.	13.60	-
extra grade, dms. ... lb.	14.80	-
syn., dms. ... lb.	9.50	-
Hydroxyethyl cellulose, t.l., divd ... lb.	2.07	2.12
Hydroxyethyl methylcellulose (visc. 5,000 through 45,000 cps.) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.73	-
Hydroxypropyl methylcellulose, premium, U.S.P. (visc. 4,000 through 15,000) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.87	-
Hydroxypropyl methylcellulose, U.S.P (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.99	-
Hydroxypropyl methylcellulose (visc. 4,000 through 15,000 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.17	-
Hydroxypropyl methylcellulose (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.64	-
8-Hydroxyquinoline (see Oxyquinoline)		
Hypophosphorous acid, purif., 50% dms., c.l., works ... lb.	3.15	-

I

Ichthammol, NF, 200-kilo dms ... lb.	4.25	4.50
Iminodiacetic acid, 96% min., dms., c.l., t.l., works ... lb.	3.00	-
Indole, dms ... lb.	25.50	-
Inositol, 50-kilo dms., 1000 kilos or more, f.o.b. works ... kilo	17.50	22.00
Iodine, crude, dms ... kilo	13.50	18.00
Iodine USP ... lb.	14.21	14.59
Iodochlorhydroxyquin, USP, XVI 50-kilo dms., 100-499 kilos, frt. alld ... kilo	35.00	45.00
Iodoform, NF, dms., 300-lbs., f.o.b. works ... lb.	24.00	-
a-Ionone, dms. ... lb.	18.20	-
b-Ionone, dms. ... lb.	13.10	-
Ipecac root, whole, bgs ... lb.	25.00	-
Irish moss, bleached, prime, whole ... lbs.	.55	.60
Iron blue, alkali-resistant, bgs., l.c.l., ton lots, div. E. ... lb.	2.70	-
Iron blue, reg., bgs., l.c.l., ton lots, same basis ... lb.	2.00	2.15
Iron, purif., powd., pails, 10-100-lb. lots ... lb.	1.00	-
Iron oxide, black, syn., bgs., c.l., frt. equald ... lb.	.68½	.75½
Iron oxide, brown, syn., bgs., c.l., frt. equald ... lb.	.68	.78½
Iron oxide, metallic brown, l.c.l., bgs., frt. equald ... lb.	.13	.15
Iron oxide, nat., red., dom., pure, bgs., c.l., works ... lb.	.275	.40
Iron oxide, yellow, ... lb.	.18	-
syn., bgs., c.l., frt. equald ... lb.	.63	.71
Iron oxide, buff, nat., dom, bgs., c.l., t.l., works, light ... lb.	.75	.80
dark ... lb.	.60	-
other shades, bgs., c.l., frt. equald ... lb.	.50	.55
Isatoic anhydride, bgs., f.o.b. works lb.	1.40	-
Isoamyl alcohol, 95% tanks, frt. alld ... lb.	1.44	1.48
Isoborneol, 100 lb. dms ... lb.	7.25	-
Isobornyl acetate, dms ... lb.	.80	1.15
Isobutyl acetate, solvent grade, tanks, frt. alld ... lb.	.45	.48
Isobutyl acrylate, tanks, frt. alld. E. . lb.	.71	-
Isobutyl alcohol, tanks, divd ... lb.	.29	-
Isobutylene, 99%, tanks, f.o.b. works ... lb.	.32	-
Isobutyl isobutyrate, tanks, f.o.b. works ... lb.	.42½	-
Isobutyl methacrylate, tanks, divd. . lb.	.87	-
Isobutyl phenylacetate, dms ... lb.	3.10	3.50
Isobutyl salicylate, dms ... lb.	3.45	-
Isobutyraldehyde, tech., dms., c.l., divd ... lb.	.43	-
tanks, divd ... lb.	.35	-
Isobutyric acid, dms., c.l., t.l., divd. . lb.	No Prices	
tanks, same basis ... lb.	.75	
Isobutyronitrile, dms., c.l., f.o.b. works frt. collect ... lb.	.84	-
tanks, same basis ... lb.	.75	-
Isoeugenol, dms ... lb.	5.20	5.60
Isoniazid, powd. ... kilo	12.00	-
Isonicotinic acid, hydrazine (see Isoniazid).		
Isononyl alcohol, dms., t.l. ... lb.	.48	-
Iso-octyl alcohol, tanks, divd ... lb.	.44	-
Isophorone, tanks divd ... lb.	.81	-
Isophthalic acid, 99%, bulk, f.o.b., Joliet, Ill., min. frt. alld ... lb.	.46	-
Isophthalonitrile, bgs., t.l., works ... lb.	2.65	-
Isopropyl acetate, tanks, divd. ... lb.	.47	-
Isopropyl alcohol, anhyd., 99%, tanks, divd ... gal.	1.38	-
refd., 95%, tanks, divd ... gal.	1.31	-
refd., 91%, tanks, divd ... gal.	1.25	-
Isopropyl ether, tanks, divd ... lb.	.44	-
crude, tanks, divd ... lb.	.37	-
Isopropylamine. (see Mono-, Di- or Tri-).		
Isopropyl myristate, dms., t.l., E. ... lb.	1.19	1.50
Itaconic acid, refd. bgs t.l. ... lb.	1.45	1.48

J

J acid, paste, dms., works, 100% basis ... kilo	4.75	-
Japan wax, ce. ... lb.	5.50	5.60
Jojoba oil, 55-gal. dms., f.o.b. Arizona producing point ... gal.	55.00	60.00
Juniperberry oil, Italian ... kilo	120.00	-

K

Kaolin, water washed, fully calcined, bags c.l., f.o.b. Georgia .. ton	255.00	-
NF pwd., colloidal, bacteria controlled, 50 lb. bags., 5,000 lb. lots ... lb.	.24	-
Kaolin, uncalcined. No. 1 coating, bulk, c.l., f.o.b., Georgia ... ton	94.00	-
No. 2 coating ... ton	75.00	-
No. 3 coating ... ton	73.00	-
No. 4 coating ... ton	70.00	-
filler, gen,l purpose, same basis ... ton	58.00	-
delaminated water washed, uncalcined paint grade 1 micron avg., same basis ... ton	182.00	-
dry-grd. airfloated soft, same basis ... ton	60.00	-
Karaya gum, No. 1, powd., bbls ... lb.	2.25	-
No. 2, powd., bbls ... lb.	1.95	-
Kola nuts, bgs ... lb.	.50	.53

L

Lacquer diluent petroleum, 140F.-200F. b.r., t.c., New Jersey and New York ... gal.	1.25	-
Houston, Texas ... gal.	1.29	-
Lacquer diluent, petroleum 200F.-240F. b.r., tankcars, New York and New Jersey ... gal.	1.20	1.25
Houston, Tex. ... gal.	1.12	-
Lactic acid, food grade 88%, t.c., f.o.b. works ... lb.	1.06	-
50%, t.c., frt. equald ... lb.	.62	-
tech., 88%, t.c., frt. equald ... lb.	1.03	-
Lactose, edible, reg. bgs., c.l., works ... lb.	.22	.28
Lactose, USP, reg. dms., c.l., t.l. frt. equald ... lb.	.65	.69
Lactose, USP, spray dried, bgs., t.l., frt. equald ... lb.	.60	-
Lake C, red toner. (red 53) bbls., frt. alld ... lb.	5.70	-
Lanolin, anhyd., cosmetic. 400-lb. dms., works ... lb.	1.18	1.25
pharmaceutical, 400-lb. dms. works ... lb.	1.15	-
tech., (under 2% f.f.a.), 400-lb. dms., works ... lb.	1.08	113
Lard (See Oils, Fats & Waxes market report.)		
Lard oil, No. 1, dms., c.l., f.o.b. ... lb.	.34	
tanks, same basis ... lb.	.28	
Lard oil, extra, winter-strained, dms., c.l. ... lb.	.41	-
tanks, same basis ... lb.	.33	-
prime, burning, dms., c.l., same basis, Chicago ... lb.	.43	-
prime, burning, tanks, same basis ... lb.	.35	-
NOTE: 300 Mi. rad. 1¼c. higher, except Texas, 2c., and West Coast, 3c. higher.		
Laurel leaves, Turkish ... lb.	3.00	3.10
Laurent's acid, drums, f.o.b. ... lb.	3.85	-
Lauric acid, coml., pure bgs., c.l. ... lb.	.65	.71
Lauric aldehyde (aldehyde C-12). dms ... lb.	7.75	-
n-Lauryl methacrylate, dms., c.l., t.l., works ... lb.	1.72	-
Lavandin oil, Abrials, 30-32%, dms. lb.	6.50	-
Lavender flowers, ord. ... lb.	.65	.75
medium, bls. ... lb.	.80	.90
select. bls. ... lb.	1.10	1.19
Lavender flower oil, NF, French, ...		
40-42%, ester, cns ... lb.	9.00	13.00
spike, Spanish, dms ... kilo	13.00	14.00
Lead acetate, purif., flake. 400-lb. dms., works ... lb.	.46	-
tech., flake, t.l., 400lb. dms., works ... lb.	.37	-
Lead blue, basic, sulfate, bbls., c.l., ship, t. pt., f.o.b. ... lb.	.87	-
Lead carbonate. (see Lead white basic carbonate).		
Lead chloride, 400-lb dms., works. lb.	3.25	-
Lead dioxide, tech., powd., 200-lb. dms., t.l., works ... lb.	.66	.70
Lead fluoborate, liq. conc., dms., t.l., works, frt. equald ... lb.	.65	-
Lead metal, divd ... lb.	.24	-
Lead monosilicate, milled, bgs., c.l., f.o.b. works ... lb.	.58½	-
coarse, bgs., c.l., same basis ... lb.	.57½	-
Lead naphthenate liq., 24% Pb. dms., frt. alld ... lb.	.93	-
Lead nitrate tech., cryst., 400-lb. dms., t.l., works ... lb.	.32½	-
Lead peroxide (see Lead dioxide).		
Lead red, 95% Pb_3O_4, or less, bgs. c.l., works ... lb.	.37	-
Lead red, 97% Pb_3O_4, bgs. c.l., works ... lb.	.37½	-
Lead, red, 98% Pb_3O_4, bgs., c.l., same basis ... lb.	.37½	.40½
Lead silicate (see Lead, white, basic silicate).		
Lead silicochromate, bgs., c.l., works ... lb.	.35	-
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate)		
Lead, white, basic carbonate, bgs., c.l., frt. alld ... lb.	.52	-
Lead, white, basic, silicate, bgs., c.l., same basis ... lb.	.87	-
Lead, white, basic sulfate, bgs., c.l., same basis ... lb.	.85	-
Lecithin, edible, tech., bleached, non-ret. dms., t.c.l., works ... lb.	.36	-
unbleached non-ret. dms., l.c.l., same basis ... lb.	.34	-
edible, tech. bleached, non-ret., dms., t.l., works ... lb.	.28	-
unbleached, non-ret., dms., t.l., same basis ... lb.	.26	
Lemon oil, Argentina ... kilo	15.00	
Brazil ... lb.	9.00	-
Calif., USP, dms. ... lb.	8.50	9.50
Italian ... lb.	12.50	-
Lemongrass oil, Indian, dms ... kilo	11.25	-
Guatemalan, dms ... lb.	2.25	-
dl-Leucine, dms., 1 kilo works ... kilo	60.00	90.00
Licorice root, whole, bls ... lb.	.40	.50
gran., bls ... lb.	.70	.90
powd., bls ... lb.	.95	-
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).		
Lime, chemical, pebble (quicklime), bulk, 50,000 lbs., works, f.o.b. plants ... ton	39.00	45.00
Lime, chemical, hydrated, bulk, same basis ... ton	46.00	50.00
bgs., same basis ... ton	54.00	57.00
Lime, NF, purif., 100-lb. dms ... lb.	.69	-
Lime oil, dist., Mexican, dms ... lb.	6.00	-
Haitian, dist., dms ... lb.	6.50	-
expressed, dms ... lb.	17.50	-
Lime salts (see Calcium).		
d-Limonene, dms ... kilo	.70	.85
Linalool ex bois de rose oil, dms ... lb.	6.35	-
syn., 98-100% dms., f.o.b. works. lb.	2.93	-
Linalool oxide, syn., 55-gal. dm. ... lb.	7.75	-
Linalyl acetate ex bois de rose oil, 90-92%, dms ... lb.	18.00	21.00
syn. 98-100%, dms., f.o.b. works. lb.	3.10	-
Linalyl benzoate, syn., 55-gal. dms. lb.	8.00	-
Linalyl cinnamate, syn., 55-gal. dms ... lb.	59.85	-
Linalyl formate, syn., 55-gal. dms.. lb.	7.75	8.50
Linalyl isobutyrate, syn., 55-gal. dms ... lb.	6.50	6.55
Lindane, 20% formulation, dms., divd ... gal	13.10	-
99.9% tech., dms., t.l., divd ... lb.	6.50	-
Linalyl propionate, syn., 55-gal. dms ... lb.	7.90	-
Linden flowers, with leaves, bls ... lb.	.78	.85
without leaves, bls ... lb.	.90	1.15
Linseed meal (see Oils, Fats & Waxes market report).		
Linseed oil, (see Oils, Fats & Waxes market report)		
Linseed oil fatty acid, dist., dms ... lb.	.60	.67
tanks ... lb.	.53	.62
Litharge, coml., powd., bgs., c.l., works ... lb.	.36½	.60
Lithium bromide, anhyd., dms., ton lots, divd ... lb.	6.27	-
soln., same basis ... lb.	4.00	-
Lithium carbonate, powd., bgs., c.l., t.l., divd ... lb.	1.50	-
Lithium chloride, anhyd., c.l., t.l., divd ... lb.	3.32	-
soln., dms., c.l., t.l., divd ... lb.	2.94	-
Lithium fluoride, dms., c.l., t.l., divd. lb.	4.90	-
Lithium hydride, c.l., t.l., divd. 10,000 or more ... lb.	23.80	-
Lithium hydroxide, monohydrate, dms., c.l., t.l., divd ... lb.	1.83	-
Lithium hypochlorite, c.l., t.l., works. lb.	1.07	-
Lithium metal, 1,000-lb. lots or more, divd ... lb.	22.70	-
Lithium nitrate, tech., dms., 100-lb. lots ... lb.	3.25	-
Lithium stearate, bgs., c.l., frt. alld. . lb.	1.01	-
Lithium sulfate, anhydrous, t.l. divd. lb.	3.08	-
Lithol red toner, barium, dms., frt. alld ... lb.	3.27	-
calcium, dms., same basis ... lb.	3.50	-
Lithol rubine toner (red 57), resinated, dms., frt. alld ... lb.	5.60	-
Litsea/cubeba oil, dms ... lb.	2.60	-
Locust bean gum, powd., bgs ... lb.	6.00	6.75
2,4-Lutidine, dms., t.l., frt. equald. kilo	5.75	-
Lycopodium, 50-lb. dms ... lb.	8.00	10.00
l-Lysine monohydrochloride, feed grade, 10,000 lbs. divd ... lb.	1.35	1.40

M

Mace, East Indian, siftings ... lb.	4.95	[illegible]
Slauw #2 ... lb.	5.60	[illegible]
Magnesia, tech., light, neoprene-grade, bgs., c.l., t.l., works lb.	.75	[illegible]
Magnesia, syn., tech., chemical-grade, bulk, c.l., t.l. works ... ton	330.00	-
bags, c.l., t.l., same basis ... ton	365.00	-
deadburned, bulk, same basis ... ton	392.00	-
bgs., same basis ... ton	409.00	-
Magnesia, nat., tech., heavy, 85%, 150 mesh, bulk, c.l., t.l., f.o.b. Nev. ... ton	232.00	-
90%, 325 mesh, same basis .. ton	265.00	-
Magnesium bromide, 80-lb. dms., hexahydrate ... lb.	2.60	-
Magnesium carbonate, light, tech., bgs., c.l., t.l., works, frt. equald ... lb.	.73	[illegible]
USP, lite bgs., c.l., same basis ... lb.	.74	[illegible]
USP, heavy, bgs., c.l., same basis. . lb.	.63	-
Magnesium chloride, anhyd., 92%, flake or pebble dms., c.l., works ... lb.	.12¾	[illegible]
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works ... lb.	.14½	-
Magnesium gluconate, 100-lb. dms. f.o.b. works, E. ... lb.	4.25	-
Magnesium hydroxide, NF, powd., dms., c.l., t.l, works frt. equald ... lb.	.78	-
Magnesium lauryl sulfate, tanks, f.o.b. works ... lb.	.22	[illegible]
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more. f.o.b. Freeport, Tex ... lb.	1.53	-
die casting alloys ... lb.	1.29	[illegible]
Magnesium nitrate, tech., flake. 250-lb. dms., t.l., works ... lb.	.32	-
Magnesium oxide, USP, light, bgs., c.l., works, frt. equald ... lb.	1.65	-
heavy, dms., c.l., same basis ... lb.	1.54	-
Magnesium oxide, tech. (see Magnesia).		
Magnesium phosphate, tribasic, tech. 60-lb. bgs., f.o.b. ... lb.	1.00	-
Magnesium silicate (see Talc).		
Magnesium silicofluoride, bgs., c.l., t.l. works ... lb.	.1645	[illegible]
Magnesium stearate, bulk, t.l. ... lb.	.95	[illegible]
Magnesium sulfate 10% Mg. (epsom salts), tech. bgs., t.l., works ... lb.	.14	-
bulk, same basis ... lb.	.13	-
USP, cryst., bgs., same basis . lb.	.13½	-
USP, cryst., bulk, same basis . lb.	.14½	-
Magnesium sulfate, 17% Mg. (synthetic monohydrate), tech. bgs. t.l., works ... lbs.	.80	-
CP, same basis ... lbs.	1.25	-
Magnesium sulfate, anhydrous, CP bgs., t.l., works ... lbs.	1.75	-
Magnesium sulfate trihydrate, tech., bgs., t.l., works ... lb.	.45	-
Magnesium trisilicate, USP, powd., lb. dms. 5,000-lb. lots ... lb.	.38	-
USP, micronized powd., dms., 375-lb. lots ... lb.	.30	-
Malathion, tech., dms., t.l., works. lb.	1.62	-
Maleic acid, cryst., powd., drums, 100 kilos, f.o.b. ... kilos	3.20	-
drums, tons, f.o.b. ... kilos	2.80	-
Maleic anhydride, bgs., t.l., works, frt. equald ... lb.	.55	[illegible]
tanks, works, frt. equald ... lb.	.53	-
Malic acid, purif. and food grades. 50-lb. bgs., t.l., c.l., divd. ... lb.	.81	[illegible]
Mandarin oil (see Tangerine oil, Italian).		
Mandelic acid, dms., 1,000 kilo lots ... kilo	6.00	[illegible]
Manganese acetate, dihydrate, dms., divd ... lb.	.43½	[illegible]
tetrahydrate, dms., t.l., divd ... lb.	.48	-
Manganese borate printing ink drier. lb.	1.68	[illegible]
Manganese borate, tech., dms ... lb.	.80	[illegible]
Manganese carbonate, chemical grade, 48% Mn. bgs., 20,000-lb. lots or more, works ... lb.	1.05	-
Manganese chloride, anhyd., dms., 20,000-lb. lots or more ... lb.	.61	-
Manganese dioxide, nat., African, grd., 74%-76% MnO_2, 100-lb. bgs., .l., works ... ton	200.00	[illegible]
84% MnO_2, same basis ... ton	250.00	-
Manganese dioxide, syn., cryst., battery grade, 90%-92% MnO_2, 100-lb. bgs., c.l., works ... lb.	.70	[illegible]
chemical, ferrite grade, same basis ... lb.	.48	[illegible]
Manganese gluconate, FCC grade, 100-lb dms., f.o.b. works ... lb.	3.60	[illegible]
Manganese hydrate dms., divd ... lb.	.95	-
Manganese hypophosphite, NF, dms. ... lb.	[illegible]	
Manganese metal, electrolytic, No. 1 chip, bulk, c.l., works ... lb.	[illegible]	
dms., c.l., works ... lb.	[illegible]	
Manganese naphthenate, liq., 6% Mn dms., divd ... lb.	[illegible]	

Manganese resinate, fused, 3½% Mn. dms., frt. alld ... lb.	.34¼	-
precip. 6½-7% Mn. dms ... lb.	.42	-
Manganese sulfate, fertilizer grade, run-of-pile, 75%-78% $MnSO_4$, 25 kilo bgs., 50-ton cars, divd. E. of Miss ... ton	280.00	-
bulk, hopper cars, same basis .. ton	245.00	-
Manganese sulfate, 28% Mn, gran., bgs., c.l., t.l., works ... ton	330.00	-
Manganese tallate, liq., 6% Mn. dms., frt. alld ... lb.	.60	-
Mannitol, coml., powd., dms., t.l., works ... lb.	3.02	-
Marjoram, French ... lb.	.66	.89
Egyptian ... lb.	.61	.82
MBT (see 2-Mercaptobenzothiazole).		
MBTS (see Mercaptobenzothiazyl disulfide).		
MDI (see Diphenylmethane 4,4,-di-isocyanate)		
Melamine, bgs., c.l., t.l., 40,000-lb. min., f.o.b. works ... lb.	.51½	.59½
bulk, c.l., t.l., same basis ... lb.	.50	.58
Melamine-formaldehyde resin, g.p., t.l. frt. alld ... lb.	.55	.60
molding compounds, same basis ... lb.	.46½	-
Menhaden oil, crude, tanks, works Atlantic Coast ... lb.	.11	-
Gulf ports, same basis ... lb.	.12	-
Menthol, nat., USP, Brazilian large and regular crystals, spot, cs., bulk ... lb.	6.75	7.50
syn., USP, racemic, 100-450 lbs. lb.	9.00	-
2-Mercaptobenzothiazole, bgs., t.l., works, frt. alld ... lb.	1.25	1.55
Mercaptobenzothiazyl disulfide t.l., dms., works, frt. alld ... lb.	1.33	1.66
Mercuric chloride NF, gran., powd., 100-lb. dms., f.o.b. works.. lb.	6.50	-
Mercuric oxide, red, purif., 100-lb. dms., f.o.b. works ... lb.	7.00	7.25
tech., 100-lb. dms., same basis ... lb.	6.50	7.00
yellow, NF, 100-lb. dms., same basis ... lb.	7.00	7.25
tech., 100-lb. dms., same basis ... lb.	5.50	7.50
Mercurous chloride (see Calomel).		
Mercury, ammoniated (see White precipitate USP XV).		
Mesityl oxide, tanks, divd ... lb.	.46	-
Methacrylic acid, glacial, 99%, dms., t.l., frt. equald ... lb.	.87	-
tanks, works, frt. equald ... lb.	.78	-
d-Methamphetamine hydrochloride, dms ... lb.	12.00	16.00
dl-Methamphetamine hydrochloride, dms ... lb.	4.50	7.00
Methanol, syn., barges, f.o.b. producing point, Gulf Coast ... gal.	.28	-
Methenamine (see Hexamethylenetetramine).		
Methionine hydroxyanalogue, dry, 88% activity t.l., frt. alld ... lb.	.86	-
liquid, 88% activity, t.l. frt. alld ... lb.	.68	-
dl-Methionine (see Racemethionine)		
Methoxychlor, 50% wettable powder, dealers, dms ... lb.	2.05	-
Methyl abietate, non-ret. dms., c.l., divd. E ... lb.	9.40	-
Methyl abietate, hydrogenated, non-ret. dms., l.c.l., same basis ... lb.	10.00	-
Methyl acetoacetate, East, divd. bulk ... lb.	.85	-
Methyl acrylate, tanks, divd ... lb.	66.00	-
Methyl alcohol (see Methanol)		
Methyl amyl alcohol, tanks, divd ... lb.	.55	-
Methyl n-amyl ketone, tks., divd ... lb.	.54½	-
Methyl anthranilate, tech., dms., f.o.b. ... lb.	1.41	2.65
Methyl benzoate, dms., t.l. ... lb.	.25	-
99.9%, perf. grade, dms., t.l. ... lb.	1.65	-
Methyl bromide, dist., tanks, 140,000 lbs. min., frt. alld ... lb.	.56¾	-
Methylcellulose, premium, USP (visc. 400 through 4,000 cps) 50 lb. bags, tl., cl., 30,000 lb., min., divd., zone 1 ... lb.	2.73	-
Methylcellulose, premium USP (visc. 15 cps) 50 lb. bags, tl., cl., 30,000 lbs., divd., zone 1 .. lb.	2.85	-
Methylcellulose, (visc. 400 through 4,000 cps) 50 lb. bgs., tl., cl., 30,000 lbs., divd., zone 1 .. lb.	2.24	-
Methylcellulose (visc. 15 to 25 cps) 50 lb. bags, tl., cl., 30,000 lb. min., divd., zone 1 ... lb.	2.52	-
Methyl chloride, indust. bulk, tanks, f.o.b. works ... lb.	.26	-
Methyl chloroform (see 1,1,1-Trichloroethane).		
Methyl cinnamate, dms ... lb.	4.65	-
Methyl p-cresol, dms ... lb.	6.00	-
Methyl ethyl ketone, tanks, divd, E.. lb.	.235	-
Methyl eugenol, 25-lb. cns ... lb.	3.55	3.80
Methyl formate, pure, non-ret. dms., works ... lb.	.41	-
tanks, same basis ... lb.	.29	-
tech., tanks, works ... lb.	.31	-
Methyl heptenol, syn., 55-gal. dms. lb.	14.50	-
Methyl heptenone, pure, dms ... lb.	7.30	-
Methyl heptin carbonate, dms ... lb.	45.00	-
Methyl p-hydroxybenzoate (see Methylparaben)		
Methyl ionone, std., dms ... lb.	7.30	9.40
Methyl isoamyl ketone, tanks, divd. E ... lb.	.51	-
Methyl isobutyl carbinol (see Methyl amyl alcohol).		
Methyl isobutyl ketone, tanks, divd. lb.	.35	-
divd. zone 2 (Calif.) ... lb.	.38	-
divd. zone 3 (W. of Rockies, excluding Calif.) ... lb.	.41	-
Methyl isoeugenol, 25-lb. cns ... lb.	6.60	10.40
Methyl methacrylate, tanks, divd ... lb.	.62	-
Methyl naphthyl ketone, cryst., dms ... lb.	14.00	-
Methylparaben, USP, 500 kilograms, f.o.b. ... kilo	10.14	-
tech., 500 kilograms, f.o.b. ... kilo	9.70	-
Methyl parathion, tech., 80%, dms., frt. alld. E ... lb.	1.65	-
Methyl phenylacetate, dms ... lb.	3.60	5.40
N-Methyl 2-pyrrolidone, tanks, f.o.b. plant ... lb.		
dms., c.l., t.l., same basis ... lb.	1.32	-
Methyl rosaniline chloride, USP, 1-lb. ... lb.	1.40	-
cans ... lb.	5.50	-
Methyl salicylate, NF, 1000-lb. dms., t.l., frt. alld ... lb.	1.79	1.94
Methyl violet (see Methyl rosaniline chloride).		
Methyl violet toner, molybdated, PMA, bbls., divd. E. of Rockies .. lb.	3.25	-
Methyl violet toner, tungstated, PTA, bbls., same basis ... lb.	4.70	5.20
4,4,-Methylene dianiline (p,p-diaminodiphenyl meth.ane) crude, dms., t.l., f.o.b. ... lb.	1.75	-
purif., flake, same basis ... lb.	2.25	-
Methylene di-p-phenylene di-isocyanate (see diphenylmethane 4,4,-di-isocyanate).		
Methylene chloride, tanks, 4,000 gal.-min., consumers, divd ... lb.	.35	-
Methylpentanediol (see Hexylene glycol).		
Methylphenylpyrazolone (see 1-Phenyl-3-methyl-pyrazolone-5).		
a-Methylstyrene, f.o.b. shipping pt.. lb.	.44	-
p-Methylnaphthalene, bulk, works, gal.	1.38	-
Methylthionine chloride (see Methylene blue).		
Mica, dry-grd., joint cement, plastic, 50 lb., bgs., c.l., works ... lb.	.07½	-
dry-grd., roofing, 20 to 80 mesh. works ... lb.	.07	-
paint or lacq., wet-grd., 325-mesh, bgs., c.l., f.o.b. works ... lb.	.16¾	-
rubber, bgs., c.l., f.o.b. works ... lb.	.16¾	-
wallpaper, bgs., c.l., f.o.b. works. lb.	.22	-
Microcrystalline wax, petroleum, coating grades, FDA, tanks, works ... lb.	.36½	.46½
laminating grades, FDA, tanks, works ... lb.	.38½	.48
Mineral oil, white, 50-65 vis., USP light tanks, refy ... gal.	2.38	-
65-75 vis., tanks, refy ... gal.	2.42	-
80-90 vis., tanks, refy ... gal.	2.45	-
145-155 vis., tanks, refy ... gal.	2.53	-
USP 180-190 vis., tanks, refy ... gal.	2.54	-
200-210 vis., tanks, refy ... gal.	2.58	-
340-350 vis., tanks, refy ... gal.	2.65	-
Mineral spirits, petroleum, odorless, tanks, New Jersey ... gal.	1.83	1.88
Houston, Tex. ... gal.	1.78	1.79
Mineral spirits, petroleum, regular, tanks, New Jersey ... gal.	1.41	1.49
Houston, Tex. ... gal.	1.41	1.43
Molybdate orange, bbls ... lb.	1.52	1.95
Molybdenum metal, com.l., powd., 99.8%, dms., works ... lb.	13.50	-
Molybdenum trioxide, CP, dms., works, 24,000 lbs. or more. lb.	5.25	-
tech., chemical, dms., 24,000 lbs. or more, basis ... lb.	2.65	2.85
tech. metallurgical, dms. same basis. lb.	2.65	2.85
Molybdic acid (See Ammonium Dimolybdate)		
Monoammonium phosphate, fert. grade, min. 13% N. 52% P. bulk, c.l., f.o.b. Fla. works ... ton	155.00	-
Monoammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald ... 100 lbs.	54.00	-
food grade, bgs., c.l., t.l., same basis ... 100 lbs.	59.25	-
Mono-tert-butyl-m-cresol, bulk, t.l. . lb.	1.69	-
Monobutylamine, bulk, divd ... lb.	.96	1.00
Monochloroacetic acid, purif. (see Chloroacetic acid, mono).		
Monochlorobenzene, tanks, f.o.b. . lb.	.42½	-
Monoethanolamine, tanks, frt. alld. E ... lb.	.43	.46
Monoethylamine, 70% aqueous tanks, frt. prepaid, 100% basis ... lb.	.94	-
anhyd., tanks, same basis ... lb.	.92	-
Monoisopropanolamine, dms., c.l., frt. alld. E. ... lb.	.78	-
tanks, same basis ... lb.	.66	-
Monoisopropylamine, anhyd., dms., c.l., frt. prepaid ... lb.	.79	-
tanks, same basis ... lb.	.76	-
Monomethylamine, anhyd., tanks, contained basis frt. equald ... lb.	.54½	-
25% soln., tanks, frt. alld. 100% basis ... lb.	.57	-
40-60% soln., tanks, frt. equald. 100% basis ... lb.	.83½	-
Monopotassium glutamate, dms., 990 lb. or more, frt. alld ... lb.	2.60	-
Monosodium glutamate, 50-lb. bgs. c.l., t.l., divd ... lb.	.76	.80
100-lb. drums, c.l., t.l., divd ... lb.	.85	-
Monosodium phosphate (see Sodiumphosphate, monobasic).		
Montan wax, crude, imp., German . lb.	.55	.57
dom., Calif., bgs., c.l., t.l., f.o.b. shipt. pt ... lb.	.61	-
refd., dom. Calif., same basis ... lb.		
Morphine alkaloid, NF, 25 k lots .. kilo	1018.00	-
Morphine sulfate, USP, 25 k lots .. kilo	850.00	-
Morpholine, dms., c.l., frt. alld. E. . lb.	1.02	-
tanks, frt. alld., E ... lb.	.94	-
Muriatic acid (see Hydrochloric acid).		
Musk, syn., ambrette, 28-lb. cns. .. lb.	6.00	7.00
Musk, syn., ketone, dms ... lb.	10.75	-
Musk, syn., xylol, dms ... lb.	3.60	-
Mustard oil, syn. (see Allyl isothiocyanate).		
Mustard seed, Brown No. 1 ... lb.	.22	-
Canadian No. 1 Yellow ... lb.	.23	-
Oriental No. 1 bgs ... lb.	.22	-
Myrcia oil (see Bay oil).		
Myristic acid, coml., pure, t.l., bgs. . lb.	1.30	-
tanks ... lb.	1.12	-
Myristica oil (see Nutmeg oil).		
Myrrh gum, bgs ... lb.	2.25	-

N

Naphtha, high solvency (see Solvent naphtha, petroleum).		
Naphtha, petroleum, cleaners (see Cleaner's naphtha).		
Naphtha, VM&P, petroleum, tanks, New Jersey and New York ... gal.	1.29	1.34
Houston, Tex. ... gal.	1.20	-
Naphthalene, crude, dom., 78°, tanks, works ... lb.	.22	-
Naphthalene, phthalic anhydride grade, tanks, works ... lb.	.23½	-
Naphthalene, petroleum, 80°C., f.o.b. ... lb.	.30	.32½
Naphthalene, refd., balls, flakes, wholesalers, jobbers, dms., works ... lb.	.68	.77
Naphthenic acid, crude, bulk, works lb.	.18	.32
refined, 220 acid, same basis ... lb.	.75	1.00
a-Naphthol, ground, dms., t.l. divd .. lb.	1.81	-
b-Naphthol, tech. flake, 50-lb. bgs., c.l. works ... lb.	1.10	-
Naphthol arylide red toner deep shades, bbls ... lb.	9.50	-
light shades, bbls ... lb.	7.75	-
2-Naphthol-3,6-disulfonic acid, disodium salt (see R salt).		
1-Naphthol-5-sulfonic acid (see L-acid).		
1-Naphthol-5-sulfonic 8-amino acid (see S acid).		
Naphthylamine sulfonic mixed acid (see Cleve's acid).		
a-Naphthylamine, tanks, f.o.b. works ... lb.	2.10	-
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).		
2-Naphthylamine-4,8 disulfonic acid (see Cassella acid).		
2-Naphthylamine-1-sulfonic acid (see Tobias acid).		
Neatsfoot oil, 20°F, t.l., f.o.b. works dms ... lb.	.52	-
tanks, f.o.b. works ... lb.	.47	-
30°F, t.l., f.o.b. works ... lb.	.52	-
tanks, f.o.b. works ... lb.	.44	-
40°F, dms., t.l., f.o.b. works ... lb.	.48	.49
tanks, f.o.b. works ... lb.	.39	-
Delivered prices apply on shipments within 300-mile radius of Philadelphia, Pa.; other areas, 1¼c. higher; Texas, 2c. higher and West Coast 3c. higher.		
Neomycin sulfate, USP, non-sterile, dms., 50-kilo. lots, activity basis, divd ... kilo.	75.00	-
Neopentyl glycol, slurry, 90%., c.l., t.l., divd ... lb.	.522	-
powder, flake, bgs. t.l., divd. .. lb.	.598	
Nerol, tech., dms ... lb.	5.30	5.75
perf. grade, dms ... lb.	4.60	5.00
Neroli oil, Tunisian, bots ... kilo	18,000.00	-
Nerolidol syn. 55-gal. dms ... lb.	7.05	-
Nerolin, Bromelin ... kilo	7.22	-
Niacinamide, USP, t.l. dms ... kilo.	8.00	-
Niacin NF, dms., 5,000 kilos or more, divd ... kilo	7.60	-
feed-grade, 98-99.5%, bgs., same basis ... kilo.	5.10	5.50
Nickel acetate, dms., 5,000-lbs. to t.l., divd. E ... lb.	1.82	-
Nickel carbonate, dms., bgs., 5,000-lbs. to t.l., divd. E ... lb.	3.45	-
Nickel chloride, bgs., 10,000-lbs. to t.l., divd. E ... lb.	1.19	-
Nickel fluoborate, liq. conc., dms., t.l., divd. E ... lb.	1.25	-
Nickel metal, electro cathodes, cs., works ... lb.	3.45	-
Nickel nitrate, dms., bgs., t.l., divd. E ... lb.	1.18	-
Nickel oxide, 75%-76% Ni, dms., 500-lb. lots, f.o.b. works ... lb.	2.60	-
Nickel sulfate, bgs., t.l., divd. E ... lb.	.80	.90
Nicotinic acid (see Niacin).		
Nicotinamide (see Niacinamide).		
Nitric acid, 36° Be., 38°Be, 40°Be, 42°Be. tanks, c.l., works NF, 100% basis ... ton	195.00	-
94½% to 98% HNO_3, tanks, works, 100% basis ... ton	280.00	-
o-Nitroaniline, flake, dms., t.l. works ... lb.	1.51	-
molten, refd., tanks, works ... lb.	1.44	-
molten, tech., works ... lb.	1.37	-
o-Nitroaniline, orange toner, bgs., frt. alld ... lb.	1.90	-
p-Nitroaniline, dms., c.l., t.l., 30,000 lb. min., works ... lb.	1.63	-
o-Nitroanisole, 100-kilo lots ... kilo	8.75	-
Nitrobenzene, tanks, f.o.b. ... lb.	.33	.34
o-Nitrochlorobenzene, dms., t.l., c.l., f.o.b. ... lb.	.82	-
tanks, same basis ... lb.	.74	-
2-Nitro-p-cresol, tech, dms., t.l., frt. alld ... lb.	1.75	-
Nitroethane, tanks, divd. E ... lb.	2.50	-
Nitrogen solutions, direct application, over 32% N, and mgf. type, works ... unit-ton.	1.20	-
direct application, 19-32% N ... unit-ton.	1.26	1.46
Nitrogenous sewage sludge, processed, bulk, f.o.b. Chicago ... unit ton.	4.10	-
NOTE: Price is per unit NH_3 plus $1, per unit a.p.a. bulk, f.o.b. producer,s works, Chicago.		
Nitrogenous tankage, processed, bulk, per unit-ton NH_3, f.o.b. Carrollville, Wisc ... unit ton	7.00	-
f.o.b. Forbes, Mo. ... unit ton	6.75	-
expanded, bulk, c.l., per unit-ton N, f.o.b. Forrestdale, R.I. unit ton	6.35	-
Nitromethane, dms., t.l., divd. E ... lb.	2.37	-
o-Nitrophenol, dms., f.o.b. works.. lb.	1.00	-
p-Nitrophenol, dms., c.l., f.o.b. works ... lb.	1.05	1.45
2-Nitropropane, tanks, frt. alld. E. . lb.	.55	-
m-Nitrotoluene, tech., dms., frt. alld. lb.	1.15	-
o-Nitrotoluene, dms., c.l., f.o.b. ... lb.	.65	-
tanks, same basis ... lb.	.48	.57
p-Nitrotoluene, tech. dms., c.l., works ... lb.	.83	.85
tanks, works ... lb.	.70	-
Nonylphenol, tanks, f.o.b. E. of Rockies, min. frt. alld ... lb.	.49	.53½
Norephedrine hydrochloride (see Phenylpropanolamine hydrochloride)		
Nutmeg oil, dist., East Indian, NF, dms ... kilo	27.00	28.50
Nutmegs, East Indian, whole ... lb.	3.15	-

O

Ochre (see Iron oxide, yellow, nat.)		
Ocotea cymbarum oil dms ... kilo	5.00	-
Ocotea, Chinese 90% ... kilo	5.25	-
1-Octadecanol, syn., tanks, f.o.b. .. lb.	.43½	-
1-Octanol, syn., tanks, f.o.b. ... lb.	.70	-
n-Octane, 97% min., tanks, f.o.b. Houston, Tex ... gal.	8.25	-
Octyl alcohol. perfumer's grade, bots., cns ... lb.	1.40	1.75
n-Octyl, n-decyl phthalate, tanks, divd ... lb.	.33½	.37
tert-Octylamine, dms., c.l., t.l., works.	2.60	-
Octylphenol, molten, t.c., works ... lb.	.75	.75½
Oiticica oil, liq. dms ... lb.	.40	-
tanks ... lb.	.32	-
Oleic acid, dbl.-dist. (white), dms ... lb.	.46	.59
tanks ... lb.	.38	.44
Oleic acid, s.d. (red) dms ... lb.	.43	.49
tanks ... lb.	.35	.41

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Oleum (see Sulfuric acid, fuming).		
Olibanum gum, tears, bgs ... lb.	2.10	-
Olive oil, edible, Spanish, dms ... gal.	8.00	-
Italian B-type ... gal.	5.40	5.50
Olivine, crude, works ... ton	12.00	-
20 mesh. works ... ton	15.00	-
100 mesh. works ... ton	20.00	-
Opium. USP, gran. powd. 25-kilo lots ... kilo	125.00	-
Orange oil, expressed, USP, Calif., dms., f.o.b. plant ... lb.	1.20	-
expressed Valencia, dms ... lb.	1.00	1.20
Calif., dist., cns. f.o.b. plant ... lb.	.40	-
Florida, dms ... lb.	.50	.55
Brazilian ... kilo	1.20	-
West Indian, bitter, NF X, cns., dms ... lb.	13.00	-
Orange peel, bitter, Haitian bls ... lb.	.38	-
Oregano, Greece, 30M ... lb.	2.80	-
Turkey ... lb.	2.80	-
Mexico ... lb.	1.05	-
Origanum oil, Spanish, cns ... kilo	35.00	-
Orris root, Florentine, bls ... lb.	4.00	-
powd., bbls., bxs ... lb.	4.60	5.00
Verona bls ... lb.	3.00	-
powd., bbls., bxs ... lb.	4.60	5.00
Ouricury wax, refd., pure, bgs ... lb.	3.25	3.35
Oxalic acid, bgs., c.l., works ... lb.	.44	-
b-Oxynaphthoic acid dms. works, tech ... lb.	2.55	-
Oxyquinoline base, pure, 1,000 lbs., frt. alld ... lb.	8.00	-
Oxyquinoline sulfate, 100 lbs. frt. alld ... lb.	4.00	-

P

Palladium metal, works ... Troy-oz.	134.00	-
Palm oil, (see Oils, Fats & Waxes Market Report)		
Palm oil acid, dbl-dist. dms ... lb.	.31½	-
tanks ... lb.	.30	-
s.d., dms ... lb.	.42	.45
tanks ... lb.	.35	-
Palm kernel oil, bulk, c.i.f. U.S. ports ... lb.	.18½	.19¼
Palmarosa oil, Indian dms ... kilo	36.00	-
Palmitic acid, 90%, tech., bags. ... lb.	.53	-
tanks ... lb.	.51	-
Papaverine hydrochloride, NF powd., imp. bulk ... kilo	56.00	-
Paprika, Hungarian, 100 AU bgs. .. lb.	.80	-
Spanish, 110 AU bgs ... lb.	.90	-
Paraffin, fully-refd., 127-130 F., ASTM. tanks, refy ...	.29	.35
130-135 F., ASTM, tanks, refy.	.33¼	.39
140-145 F., ASTM, tanks, refy.	.35	.41½
150-155 F., ASTM, tanks, refy.	.41½	.46
slack wax, 8% oil, tanks refy ...	.19	-
12% oil, tanks refy ...	.21	-
20% oil, tanks refy ...	.16	-
AMP temperatures are an arbitrary 3F higher than ASTP.		
Paraformaldehyde, 91%, flake, bgs. c.l., t.l., divd ... lb.	.29½	-
95%, powd., bgs., c.t., t.l. divd. lb.	.39½	-
Paraldehyde, tech., 98%, 55-gal. dms., t.l., divd. E ... lb.	.76½	-
tanks, divd. E. ... lb.	.58½	-
Parathion, ethyl, dms., frt. alld ... lb.	1.76	-
Parathion methyl (see Methyl parathion).		
Para toner red, bbls ... lb.	3.75	-
chlorinated, (red 4) kgs ... lb.	3.75	-
Patchouli oil, Indonesian, dms ... kilo	18.50	20.00
Patchouli oil, Chinese ... kilo	19.00	20.00
Peach kernel oil, USP (see Apricot kernel oil).		
Peanut meal (see Oils, Fats & Waxes market report).		
Peanut oil (see Oils, Fats & Waxes market report).		
Pectin dom., NF, citrus, powd., 100-kilo lots divd ... lb.	3.30	3.70
Pelargonic acid, nat., tanks, min. frt. alld ... lb.	.70	-
syn., tanks, f.o.b. frt. alld ... lb.	.70	-
Penicillin, potassium, non-sterile, 200-billion-unit lots,... billion units	25.00	30.00
Penicillin, procaine, sterile 50-billion-unit lots, bulk ... billion units.	36.00	-
Pennyroyal oil, dms ... lb.	5.90	-
Pentachlorophenol, 50-lb. bgs., t.l., f.o.b. Wichita, Kan ... lb.	.55	-
Pentaerythritol, tech., bgs., c.l., f.o.b., frt. alld ... lb.	.71	.72
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).		
Pentaerythritol triacrylate, t.l. dms., f.o.b. works ... lb.	1.50	-
Pentobarbital, dms., 100 lbs. or more, frt. alld ... lb.	7.00	-
Pentobarbital-sodium, dms., 100 lbs. or more, divd ... lb.	14.00	-
Pentylene tetrazol, NF, dms., 200-kilo lots ... kilo	32.00	-
Pepper, black, Brazilian, bgs ... lb.	2.28	-
Lampong, bgs ... lb.	2.30	-
Malabar, bgs ... lb.	2.28	-
Tellicherry, bgs ... lb.	2.35	-
Pepper, red Chinese Fukien rice bgs lb.	.69	-
Heimen, bgs ... lb.	1.00	-
Ling, bgs ... lb.	.78	-
Indian, 3-4, bgs ... lb.	.70	-
Pakistan, dundicuts, bgs ... lb.	.43	-
Pepper, white, Muntok, bgs ... lb.	3.05	-
Peppermint leaves, imp., dms ... lb.	2.65	-
Peppermint oil, Madras ... lb.	14.00	-
Midwest ... lb.	15.00T	-
Willamette ... lb.	11.00	-
Yakima ... lb.	8.00	-
syn., dms. f.o.b. works ... lb.	7.00	8.00
Brazilian ... kilo	6.50	-
Chinese ... kilo	6.90	-

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Perchloroethylene, dry cleaning grade, distr., tanks, dlvd. ....lb.	.28½	-
Indust., grade, consumers, tanks, dlvd. ....lb.	.31	-
Perl acid. dms. ....lb.	2.55	-
Permanent red 2B, (red 48), calcium salts, dms., frt. alld. ......lb.	5.25	-
barium salts, same basis ......lb.	5.25	-
Peru balsam, f.o.b. ....lb.	3.25	-
Petitgrain oil, Paraguay ....lb.	5.00	-
Petrolatum, USP, snow white, dms., c.l., refy ....lb.	.375	-
tanks, refy ....lb.	.310	-
USP, soft white, dms., c.l., refy. . lb.	.375	-
tanks, refy. ....lb.	.310	-
USP, lily white, dms., c.l., refy.... lb.	.370	-
Petrolatum, USP, Lily white, tanks, refy. ....lb.	.305	-
USP, cream, dms., c.l., refy ..... lb.	.365	-
tanks, refy. ....lb.	.30	-
USP, soft yellow, dms., c.l., refy.. lb.	.350	-
tanks, refy ....lb.	.285	-
USP, amber, dms., c.l., refy. .... lb.	.345	-
tanks, refy ....lb.	.280	-
Petroleum pitch (see Asphalt, petroleum).		
Petroleum sulfonate, 60-62%, sulfonic cont., HMW, bulk, works . . lb.	.48¼	.49
MMW, same basis ....lb.	.49	-
LMW, same basis ....lb.	.49	.49¼
Prices for 51% sulfonic content 2c per lb. lower on corresponding molecular wts.		
Phenacetin USP, powd., 200-lb. dms., 1,000-lb. lots, dlvd. ......lb.	2.20	-
100-lb. dms., 1,000-lb. lots, dlvd. lb.	2.22	2.45
p-Phenetidine, dms., c.l., f.o.b. .... lb.	2.00	-
Phenobarbital, USP, dms., 500-kilo lots, f.o.b. works .... kilo	19.50	-
Phenobarbital-sodium, NF, 500-kilo lots, f.o.b. works .... kilo	27.00	-
Phenol, syn. tanks, frt. equald. .... lb.	.26	.29
p-Phenolsulfonic acid, 65% sol'n., dms., c.l., fob works .....lb.	.64	-
tanks, same basis ....lb.	.58	-
Phenothiazine, indust. grade, 50-lb. bags, c.l., f.o.b. works .... lb.	2.33	-
purif. grade, same basis ....lb.	2.69	-
Phenyl acetate, dms., 100-lb. lots, works. ....lb.	1.04	-
Phenylacetic acid, pure cryst., 25-lb. cns. ....lb.	4.50	-
dl-Phenylalanine, dms., 25-kilo lots. ....kilo.	84.00	-
1-Phenyl-3-carbethoxy pyrazolone-5, dms. 200-lb. lots, dlvd. E. lb.	3.45	-
m-Phenylenediamine, cast. dms., c.l., t.l., f.o.b. works ....lb.	2.07	-
o-Phenylenediamine, flaked, dms., t.l., f.o b. works ....lb.	3.25	-
p-Phenylenediamine, flaked, dms., f.o b. works ....lb.	4.00	-
Phenylephrine hydrochloride, USP 100-kilo lots or more ....kilo.	175.00	185.00
Phenylethyl acetate, dms. ....lb.	3.35	-
2-Phenylethyl alcohol, NF, dms. ....lb.	2.10	2.20
b-Phenylethylamine, dms., 30,000 lbs. or more, frt. alld. ....lb.	1.50	-
Phenylethylphenyl acetate, 25-lb. cns. ....lb.	5.50	6.90
Phenylglyconic acid (see Mandelic acid).		
Phenylhydrazine, 99% min., dms... lb.	3.50	-
1-Phenyl-3-methyl-5-pyrazolone, dms., 250-lb. lots dlvd. E . . lb.	1.80	-
o-Phenylphenol, dms., t.l., works . . lb.	1.35	2.00
p-Phenylphenol, bgs., t.l., 40,000 lbs. or more, works. ....lb.	1.85	-
Phenylpropanolamine hydrochloride, 100-kilo dm. .... kilo	24.00	28.00
Phenylsalicylate, purif. cryst., dms., E. ....lb.	2.75	-
tech., cryst., E. ....lb.	2.25	-
flake, E. ....lb.	2.35	-
Phloxine toner (red 90), dms., frt. alld. ....lb.	1.95	2.05
Phosgene, 1-ton ret. cyls., 5 to 9-cyl. quantities, works ....lb.	.55	.67
Phosphate rock, Fla., land pebble, run of mine washed, 66-68% b.p.l. bulk c.l. mines .... ton	23.15	-
vessel, Tampa, same basis .... ton	28.00	-
Phosphoric acid, com'l. and tech. grades, 75% tanks, works. .... 100 lbs.	29.00	-
80% tanks, works .... 100 lbs.	31.00	-
85%. N.F. tanks, f.o.b. freight equald. .... 100 lbs.	33.50	-
Food grade prices $2.00 above tech. grade.		
Phosphoric acid, agricultural grade, 52-54% a.p.a., tanks, works ....unit-ton	3.10	-
super, min. 70% a.p.a., same basis. ....unit-ton.	3.45	-
Phosphorus, white (yellow) solid dms., c.l., works, frt. equald. .....lb.	1.00	-
tanks, works, f.o.b. works. . .lb.	.91	-
Phosphorus oxychloride, tanks, frt. equald. ....lb.	.40	-
Phosphorus pentasulfide, powd., dms., c.l., works.... 100 lbs.	50.00	-
tote bins, sellers. ...... 100 lbs.	45.00	-
Phosphorus pentoxide, dms., t.l., works. ....lb.	.82	-
Phosphorus sesquisulfide, dms., cvs., c.l., works. ....lb.	.38	-
Phosphorus trichloride, dms., c.l., works. ....lb.	.40	-
tanks, works. ....lb.	.35	-
Phthalic anhydride, flake, c.l., t.l., dms., frt. equald. ....lb.	.30	-
molten, tanks, same basis ....lb.	.27	-
Prices 1-1½c. per lb. higher on the West Coast		
Phthalimide, flake, works ....lb.	.85	-
Phthalocyanine blue toner, red shade, bbls., frt. alld. E. of Rockies .....lb.	8.10	9.50
green shade, same basis ....lb.	6.40	8.50
rosinated, bbls., same basis .... lb.	6.20	8.75

Phthalocyanine blue toner, water dispersable, bbls., same basis. ....lb.	7.05	7.75
Phthalocyanine green toner, all grades, bbls., frt. alld. E. of Rockies. ....lb.	8.10	10.10
Phthalocyanine green toner, resinated, bbls., same basis. ....lb.	7.45	9.20
Phthalylsulfacetamide, dms., 500- kilo lots. ....kilo.	6.61	-
Picolines, refd, mixed, bulk ...... kilo	2.81	-
Picric acid, pure paste, 25-lb. ctns., c.l., dry basis, f.o.b. Charlotte, N.C. ....lb.	6.00	-
tech., paste, 25-lb. ctns., t.l., dry basis, f.o.b. Charlotte, N.C... lb.	5.00	-
Pigment green B, kgs. ....lb.	2.20	-
Pilocarpine hydrochloride, USP, dms. ....kilo.	1,500.00	2,000.00
Pimento see Allspice		
Pimento leaf oil, dms. ....lb.	14.50	-
Pine oil, 80% min. alcohol content, bulk, f.o.b. works. ... 100 lbs	47.00	53.00
dms., c.l., t.l., same basis .... 100 lbs	51.00	54.00
a-Pinene, perfume grade .... kilo	1.82	-
tech. grade ....lb.	.18	.23
b-Pinene, perfumery grade. tanks. . kilo	2.30	-
tech. grade. tanks ....lb.	.35	.40
Piperazine, anhyd., dms., t.l., frt. alld. E. ....lb.	1.80	-
Piperazine citrate, 38%, dms., 1,100-lb. lots, frt. alld. ....lb.	2.25	2.35
Piperazine dihydrochloride, 53%, dms., t.l., frt. alld. ....lb.	2.00	-
Piperazine hexahydrate, 44%, dms., 1,100-lb. lots, frt. alld. .... lb.	1.60	-
Piperazine phosphate, 42%, dms., t.l., frt. alld. ....lb.	1.80	-
Piperidine dist. 98% min., dms., c.l., t.l., works. ....kilo.	6.92	-
Piperonyl butoxide dms., dlvd. E. . . lb.	5.00	-
Platinum, metal, works ..... Troy oz.	566.00	-
Polycarbonate resin, pellets, nat., t.l., frt. alld ....lb.	1.84	1.86
Polyester resin, unsaturated, g.p., orthophthalic, bulk, tankcars, frt. alld ....lb.	.51	.53
Isophthalic, same basis ....lb.	.58	.62
Polyethylene resin, high-density, blow molding, g.p., hopper cars, frt. alld. ....lb.	.43	.46
injection molding, g.p., hopper cars, frt. alld. ....lb.	.43	.46
extrusion, g.p., hopper cars, same basis ....lb.	.47	.48
wire and cable, nat., hopper cars, same basis. ....lb.	.45	.49
wire and cable, black, same basis ....lb.	.55½	.57
Polyethylene resin, low-density, film liner, hopper cars, frt alld . . lb.	.38	-
clarity film, hopper cars, frt., alld. ....lb.	.37	-
pallet shrink film, hopper cars, same basis. ....lb.	.35	-
extrusion coating, hopper cars, same basis. ....lb.	.38	.42
g.p., hopper cars, same basis . lb.	.38	.42
Polyethylene linear low-density g.p. resin	.38	.40
blown film resin	.40	.43½
cast film resin	.40	.45
Polyethylene resin, low-density injection molding, g.p., hopper cars, same basis ....lb.	.45	.48
line wire, CATV, power cable . . lb.	.647	-
wire and cable thermoplastic high-voltage, natural color, same basis ....lb.	.70	.74½
wire and cable, XLPE low voltage, 14% carbon black, same basis ....lb.	.67½	.72½
wire and cable jacketing, black lb.	.587	.667
Polymyxin sulfate, USP, bulk, 50-billion units min. ......million units	.52	-
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works. ....lb.	.73	-
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works. ....lb.	.73	-
Polypropylene resin, homopolymer, g.p., nat., t.l., frt. alld. .... lb.	.45	.48
copolymer, med. impact, nat. ..... same basis ....lb.	.50	.56
high impact, same basis .... lb.	.53	.60
Colored material 8c. per lb. higher for each grade.		
Polystyrene resin, cryst., nat., hopper cars, frt. alld. ....lb.	.48	-
impact, nat., hopper cars, same basis ....lb.	.51	-
high heat, high impact, nat., hopper cars, same basis ....lb.	.52	-
expandable beads (EPS), pkging grade, 1,000-lb. lots. .....lb.	.69	-
modified, same basis ....lb.	.73	-
Polyvinyl alcohol, fully hydrolyzed, medium viscosity, bgs., t.l., dlvd. ....lb.	1.00	1.05
partially hydrolyzed, medium viscosity, bgs., t.l., dlvd. ....lb.	1.05	-
Polyvinyl chloride resin, g.p., homopolymer dispersion, bgs., t.l., dlvd. ....lb.	.50	-
g.p. suspension, bulk, same basis ....lb.	.38	-
pipe grade, bulk, same basis .... lb.	.47	-
film grade, bulk, same basis .... lb.	.37	.47
Polyvinyl chloride, g.p. copolymer dispersion, same basis. ....lb.	.58	.61
g.p. copolymer suspension, same basis ....lb.	.45	.49
Poppyseed, Dutch, bgs. ....lb.	.59	-
Turkey, bgs. ....lb.	.53	-
Potash agricultural (see Potassium muriate).		
Potash, caustic. liq., 45% basis, tanks, works. .... 100 lbs.	13.00	-
West Coast, 50% basis, tanks, ex terminal .... 100 lbs.	18.06	-
reg. flake, 88-92%, 400-lb. dms., c.l., works. .... 100 lbs.	42.35	-
Potassium acetate, NF, gran., dms., t.l. works E. ....lb.	.90	1.31
Potassium bicarbonate, tech., gran., bgs., c.l., works ....lb.	.31½	-
Potassium bicarbonate, USP, gran., dms., t.l. ....lb.	.72	-

Potassium bichromate, gran., 400-lb. dms., c.l., t.l., works. .....lb.	.48	-
Potassium bifluoride, tech., dms., t.l., works., frt. equald. ......lb.	.45	.49
Potassium bitartrate, NF, gran., powd., bgs. ....lb.	.90	1.20
Potassium borohydride, powd. dms., 100-1,000 lbs., works .... lb.	18.00	20.00
Potassium bromate, gran., powd., 200-lb. dms., c.l., f.o.b. works ....lb.	1.08	-
Potassium bromide, NF., gran., dms., c.l. f.o.b. works ....lb.	1.12	-
Potassium carbonate, liq., 47% K_2CO_3, tanks, t.w., works... 100 lbs.	14.60	-
dms., c.l., t.l., works...... 100 lbs.	20.65	-
calcined, 99-100% K_2CO_3, hopper cars or trucks, works .... 100 lbs.	32.50	-
bgs., c.l., t.l., works..... 100 lbs.	35.20	-
drums. .... 100 lbs.	36.40	-
Potassium carbonate, gran., purif., 400-lb. dms., 5-dm. lots... lb.	.40	.46
Potassium chlorate, cryst., dms., c.l., works ....lb.	.14½	-
powd., dms., c.l., works. ......lb.	.30	-
purif., gran., 325-lb. dms., f.o.b. shipping point ....lb.	.40	-
Potassium chloride, chemical grade, 99.95% KCl, bulk, c.l., f.o.b works. .... ton	105.00	-
USP cryst. dms. ....lb.	1.12	-
USP gran., dms. ....lb.	.67	-
USP powd., dms. ....lb.	.67	-
Potassium chloride, agricultural (see Potassium muriate).		
Potassium chromate, purif., cryst., dms., works. ....lb.	.57	-
Potassium citrate, NF, gran., 200-lb. dms., frt. alld. ....lb.	.93½	-
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works. . lb.	1.32	-
Potassium dichromate (see Potassium bichromate).		
Potassium fluoborate, tech., dms., c.l., t.l., works, frt. equald. .... lb.	1.40	1.42
Potassium fluoride, anhyd., dms., t.l., ...lb.	1.68	-
Potassium gluconate, dms., t.l., f.o.b. works. ....lb.	1.45	-
Price W. of Denver 4c. per lb. higher.		
Potassium guaiacolsulfonate, 300-lb. dms., 600 lbs. or more frt. equald. ....lb.	2.10	-
Potassium hydroxide, tech. (see Potash, caustic).		
Potassium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. ....lb.	1.29	1.31
Potassium iodide, USP, gran., cryst., dms., 1,000-lb. lots dlvd. . . lb.	10.72	12.39
ACS grade truckload ......lb.	11.32	13.55
Potassium-magnesium sulfate, std., bgs., works. .... ton	59.00	-
basis 40% K_2SO_4 and 55% $MgSO_4$ bulk, works ..... ton	67.00	-
Potassium metabisulfate, gran., dms. t.l. ....lb.	.44	-
Potassium muriate, 60-62.4% min. K_2O, std., bulk, c.l., frt. equald., f.o.b. Sask., Canada .... ton	44.00	45.00
soluble, fine std., f.o.b. Sask. .... ton	47.00	-
coarse, f.o.b. Sask. .... ton	49.00	50.00
gran., f.o.b. Sask. .... ton	50.50	51.50
Potassium nitrate. fert. grade, std., 50-ton c.l., dlvd. SE. .... ton	267.00	274.00
prilled .... ton	277.00	284.00
tech., gran., bgs., c.l., min. 50 tons, dlvd. .... ton	470.00	-
Potassium oxalate, neutral. tech., fine gran., powd., 300-lb. dm., frt. equald. ....lb.	2.54	-
Potassium pentaborate, gran., bgs., c.l., works. ....lb.	1.01	-
dms., same basis. ....lb.	1.06	-
Potassium pentaborate powder 15c. per lb. higher.		
Potassium perchlorate, dms. c.l., works. ....lb.	.78	-
Potassium permanganate, free flowing, bulk, hopper trucks, works. ....lb.	1.09	-
50-kg. dms., same basis. .....lb.	1.20	-
150-kg. dms., same basis. ....lb.	1.17	-
Potassium permanganate, USP, 50-lb. kgs., works, c.l., t.l. .....lb.	1.38	-
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant. .... cwt.	78.80	-
c/l same basis .... cwt.	72.50	-
Potassium pyrophosphate tetrabasic, bgs., c.l., t.l., works, E., frt. equald. .... 100 lbs.	43.75	47.25
bulk, same basis .... 100 lbs.	46.00	49.50
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works. frt. alld. ....lb.	1.52	-
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis .....lb.	1.42	-
Potassium silicate, soln., 29.8-30.2 Be., 2.5 ratio, t.c., t.l., works. .... 100 lbs.	16.90	-
dms., c.l., t.l., works. 100 lbs.	25.90	-
Potassium silicate, 40-40.5 Be., 2.1 ratio, t.c., t.l., works... 100 lbs.	25.05	-
40-40.5 Be., 2.1 ratio, dms., c.l., t.l., works. .... 100 lbs.	32.05	-
Potassium silicate, electronics grade, 30-30.4 Be., 2.1-2.2 ratio, t.c., t.t., works. .... 100 lbs.	26.10	-
dms., c.l., t.l., works. 100 lbs.	33.10	-
solid or glass, 2.15 ratio, dms., c.l., t.l., works. .... 100 lbs.	53.30	-
solid or glass, 2.5 ratio, dms, c.l., t.l., works.	45.65	-
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of K_2O.		
Potassium silicofluoride, bgs., c.l., t.l., frt. equald. ....lb.	.11½	.15
Potassium-sodium tartrate, NF, gran. or powd., dms. ....lb.	.80	1.20
Potassium sorbate, t.l. dms., dlvd. . lb.	2.20	3.10
Potassium stannate, dms., frt. alld. . lb.	N.A.	-
Potassium sulfate, agricultural grade, min. 50% K_2O std., bulk, c.l., f.o.b. works. .... ton	150.00	160.00
Potassium sulfate, gran., purif. 400-lb. dm. ....lb.	.88	-

Potassium tetraborate, gran., bgs., c.l. works. ....lb.	1.10	-
dms., same basis. ....lb.	1.15	-
Potassium tetraborate powder 15c. per ton higher		
Potassium thiocyanate, USP, cryst., 225-lb. dms., 5-dm. lots . . lb.	4.01	-
tech., cryst., dms., t.l. ....lb.	.82	-
Potassium titanate, ctns., c.l., works. ....lb.	.71¼	-
Potassium-titanium fluoride, tech., dms., t.l., works, frt. equald lb.	1.24	1.59
Potassium-zirconium fluoride, tech., dms., t.l., works, frt. equald. ....lb.	.78	-
Prednisone USP. dms., 5 kilos or more ....gram	1.03	-
Prednisolone acetate, USP, dms., 5 kilos or more ....gram	1.12	-
Prednisolone, anhyd., USP, dms., 5 kilos or more ....gram	1.12	-
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld. ....lb.	4.95	5.75
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld. ....lb.	4.95	5.50
Propionaldehyde, tanks, f.o.b. .... lb.	.35½	-
Propionic acid, syn., pure, tanks, dlvd E. ....lb.	.33	.34½
n-Propyl acetate, tanks, dlvd. .....lb.	.53½	-
n-Propyl alcohol, tanks, dlvd. .....lb.	.42	.44
n-Propyl gallate dms., 100 to 2,000-lb. lots, dlvd. ....lb.	11.50	-
n-Propyl-p-hydroxybenzoate, USP, 500 kilos .... kilo	10.80	-
tech., 500 kilos, f.o.b. .... kilo	10.38	-
Propyl paraben (see n-Propyl-p-hydroxybenzoate)		
Propyl thiouracil, dms., 50-kilo lots or more ....kilo.	55.00	-
n-Propylamine, dms., c.l., dlvd. .... lb.	.75	.80
Propylene, polymer grade, f.o.b. Tex. and La. Gulf Coast points . lb.	.17¼	-
chemical grade same basis ... lb.	.15¾	.16
Propylene glycol, indust.. tanks, f.o.b. lb.	.40	.41
USP, tanks, f.o.b. E ....lb.	.43	.44
Propylene glycol monomethyl ether, tanks, dlvd. E. ....lb.	.49	-
Propylene oxide, tanks, f.o.b. works, frt. equald. ....lb.	.47½	-
Psyllium seed, USP powd bgs. .... lb.	1.50	1.75
Pumice, dom., fine, 4F-0, bgs., ton lots. .... ton	270.00	-
medium, 0½-1½, bgs., ton lots . ton	300.00	-
coarse, 2-extra coarse, bgs., ton lots. .... ton	300.00	-
Pumice, imp., Italian, fines, bgs., ton lots f.o.b. East Coast .... ton	280.00	-
medium, bgs., ton lots. f.o.b. East Coast. .... ton	350.00	-
coarse, bgs., ton lots f.o.b. East Coast. .... ton	300.00	-
Pyrazolone red (red 38), dms., works. ....lb.	5.25	5.35
Pyrethrum flowers, fine grd. 0.9% pyrethrins, ton lots, frt. alld. lb.	1.91	-
Pyrethrum, purif., 20% pyrethrins, dms., works. ....lb.	37.50	37.75
Pyridine, refd., 2-deg., c.l., works dms., ... kilo	5.90	-
tanks .... kilo	5.70	-
Pyridoxine hydrochloride, USP, 100 kilos or more, dlvd. ......kilo.	29.00	33.00
Pyrites, Canadian 48-50% S. mines .... long ton	4.50	5.00
Pyrogallic acid (see Pyrogallol)		
Pyrogallol, 100-lb. dms., 1,000-lb., lots, dlvd. ....lb.	13.70	15.25

Q

Quassia chips ....lb.	.57	-
Quinacridone maroon, dms., frt. alld. ....lb.	20.75	24.25
red, dms., frt. alld. ....lb.	17.75	19.00
scarlet, dms., frt. alld. ....lb.	21.75	24.25
violet, dms., frt. alld. ....lb.	17.75	18.00
Quince seed, bgs. ....lb.	2.00	2.75
Quinidine sulfate, USP, 1,000-oz. dms., 2,000 oz. or more . . oz.	4.20	4.25
Quinine hydrochloride, NF, 1,000-oz. dms., 2,000 oz. or more. . oz.	2.45	2.50
Quinine sulfate, USP XVIII, 1,000-oz. dms., 2,000 oz. or more . oz.	2.30	2.50
Quinoline, dms., t.l., frt. equald. .... lb.	1.49	-
tanks, same basis. ....lb.	1.43	-

R

R salt tech., 304 molecular wt. ....lb.	2.12	-
Racemethionine, USP, 50-250 kilos. .... kilo	6.80	-
250-500 kilos .... kilo	6.60	-
500 or more kilos .... kilo	6.50	-
feed grade, 99% min., c.l., t.l. ...lb.	1.07	-
Rapeseed oil, dms. ....lb.	.68½	.69
Rauwolfia serpentina root, powd. bls., dms. ....kilo.	22.00	-
Red carmine. No. 40 (see Carmine No. 40).		
Red precipitate. (see Mercuric oxide, red).		
Reserpine, USP, cryst., bots... gram.	.40	.42
Resorcinol tech., bgs., t.l., works. dlvd. ....kilo.	5.98	-
Resorcinol, USP, cryst., dms. 50 kilos or more, works. ....kilo.	9.35	-
powd. dms., same basis ....kilo.	9.90	-
Resorcinol monoacetate, dms., 1,000 lbs. or more. ....lb.	1.99	-
Rhodamine red toner, molybdated, PMA, dms., works. ....lb.	9.25	-
tungstated, PTMA, dms., f.o.b. works. ....lb.	11.50	14.00
Rhodinol, 25-lb. cns. syn., dms. ....lb.	105.00	105.10
Rhubarb root, India, whole, bgs. ...lb.	15.25	[illegible]
powd., bgs. ....lb.	[illegible]	[illegible]
Riboflavin, feed grade, 25 kilos, dlvd. ....kilo.	34.50	40.00
Riboflavin, USP, 25 kilos, dlvd. ....kilo.	38.00	[illegible]
Riboflavin 5-phosphate-sodium, 25-kilo lots. ....kilo.	136.00	[illegible]

Rice bran oil, refined dms. t.l. ..... lb.	1.25	-
Ricinoleic acid (see Castor oil acids, split).		
Rochelle salt (see Potassium-sodium tartrate).		
Roofing pitch (see Coaltar pitch, roofing.)		
Rose oil, nat., NF, Bulgarian, otto. bots. ....kilo.	3850.00	3990.00
Turkish, otto., bots. ....kilo.	2250.00	3000.00
Rosemary oil, NF, Spanish, dms. . kilo	9.00	11.00
Tunisian, dms. .... kilo	8.75	15.00
Rotenone resin, 30-45%, 100-lb. dms. works. .... unit-lb.	.21	.23

S

Saccharin NF, gran., soluble, dms. 1,000-lb. lots, frt. alld. ....lb.	2.60	2.75
Saccharin NF, powd., soluble, dms., less than 20,000-lb. lots, frt. alld. . lb.	3.75	-
Safflower oil, non-break. tanks, N.Y... lb.	.50	.53
edible dms., N.Y., dlvd. ....lb.	.98	1.02
Sage leaves, Dalmatian, No. 1, bgs. lb.	1.95	-
Albanian, bgs. ....lb.	1.65	-
Turkish. ....lb.	1.25	1.30
Sage oil, Clary, French, bots. .... kilo	90.00	-
Dalmatian, cns. ....lb.	9.50	10.00
Spanish, cns. .... kilo	12.50	-
Salicylaldehyde, tanks, f.o.b. .....lb.	3.60	-
Salicylamide, NF, gran., powd., dms., 2,000-lb. lots, one ship. ...lb.	1.07	1.10
Salicylic acid, tech., dms., c.l., t.l., works. ....lb.	1.23	1.41
USP, cryst., dms., 1,000 lbs. or more. ....lb.	1.33	1.63
USP, powd., dms., 1,000 lbs. or more. ....lb.	1.68	-
Salol (see Phenylsalicylate).		
Salt, evaporated, common, 80-lb. bgs., c.l., t.l., North, works. . 80 lbs.	4.02	-
bulk, same basis .... ton	60.00	61.20
chemical grade, same basis. . 80 lbs.	4.30	-
Salt, rock, medium, coarse, same basis. .... 80 lbs.	2.70	-
bulk, same basis .... ton	18.00	25.00
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis, f.o.b. works E ton	65.00	98.00
same basis W .... ton	90.00	99.00
Sandalwood oil, E. Indian .... kilo	145.00	-
Indonesia .... kilo	102.00	-
Sarcosine, tech., tanks, works, frt. equald. ....lb.	.50	-
Schaeffer's salt, paste, dms., 100% basis, works. ....lb.	2.59	-
Scopolamine hydrobromide, USP, 100-oz. lots bots. .... oz.	36.00	46.50
Sebacic acid, CP, bgs., c.l., works. . lb.	1.96	-
purif., bgs., c.l., works. ....lb.	1.94	-
Seidlitz mixture, dms., 5,000-lb. lots. lb.	.30½	-
Selenium, powd., 99.99% Se, dms., dlvd. ....lb.	13.00	-
coml., 99.5% Se. same basis. ...lb.	10.00	15.00
Senna leaves, Alexandria, whole and half, bls. ....lb.	.75	.80
Tinnevelly. No. 1, bls. ....lb.	.70	.71
powd., bbls., bxs. ....lb.	.90	1.10
Sesame oil, USP, dms., l.c.l. ......lb.	1.00	1.20
Sesame seed, Central American, hulled, bgs. ....lb.	.55	.56
Sienna pigment, burnt, paper bgs., l.c.l., works. ....lb.	.19½	.28½
raw, paper bgs., l.c.l., works.....lb.	.18¼	.23¾
Silica, amorph. dry-grd., bgs., c.l., works 93%, 200 mesh. . . ton	31.00	32.50
98%, 200 mesh. .... ton	32.00	33.50
93%, 97%, 325 mesh. .... ton	34.50	35.50
98.5%, 325 mesh. .... ton	37.00	-
99.5%, 325 mesh. .... ton	51.50	54.50
Silica, dry-grd., bgs., c.l., works, 99.9%, 400 mesh, micronized. .... ton	72.00	75.50
99% under 15 microns, micronized. .... ton	79.50	82.50
99% under 10 microns, micronized. .... ton	104.00	105.00
Silica, hard-quartz, 99.5% SiO_2, 325 mesh, bgs., c.l., works. . . ton	37.00	-
140 mesh, bgs., c.l., works... ton	34.75	-
Silicon tetrachloride, tech., dms., c.l., works. ....lb.	.50	-
tanks, works. ....lb.	.36	-
Silver bullion, ingots, cs., Troy. .... oz.	5.55	-
Silver cyanide, 80% Ag 500-oz. lots oz.	4.43	-
Silver nitrate, ACS, 58.2 Troy oz. AG/100 avoir. oz. $AgNO_3$ .... oz.	3.32	-
Soapbark, crushed, bls. ....lb.	1.00	-
powd., bls. ....lb.	1.35	1.65
Soda ash, dense, 58%, 100-lb., paper bgs. c.l., works, f.o.b. ... ton	120.00	-
bulk, c.l., same basis. .... ton	83.00	-
light 58%, 100-lb., paper bgs., c.l., same basis. .... ton	150.00	-
bulk, c.l., same basis. .... ton	123.00	-
Soda, caustic, liq., 50%, sellers tanks, Gulf Coast works, f.o.b., frt. equal., 76% Na_2O ......ton.	175.00	195.00
73%, same basis. ....ton.	205.00	225.00
flake, 76%, 400-lb. dms., c.l. works . . ton.	500.00	570.00
solid, 76%, 700-lb. dms, c.l, works. ....ton.	520.00	570.00
gran., 76%, 450-lb. dms, c.l, works. ....ton.	520.00	-
beads, 76%, 400-lb. dms., c.l., works. .... 100 lbs.	27.50	28.50
Prices for liq. rayon-type, $15 ton higher. Prices in West 70c. higher for solid, and $20–$30 ton higher for gran. and beads.		
Soda, sal., conc., bgs., c.l. works. .... 100 lbs.	3.35	3.85
Sodium acetate, anhyd., bgs., c.l., f.o.b. works. ....lb.	.54	-
Sodium acetate, USP, 60%, gran. 100-lb. dms., c.l., works. ......lb.	.57	-
Sodium alginate, NF, white powd., dom., 300 lbs. or more. ...lb.	6.00	6.75
Sodium p-aminosalicylate, dms., 100-lb. lots or more, f.o.b. works. ....lb.	4.73	-
Sodium antimonate, bgs., c.l., dlvd. E. lb.	1.49	1.50
Sodium ascorbate, USP, dms., 100 kilos. ....kilo.	9.30	10.50
Sodium benzoate, tech., bgs., c.l., t.l., frt. alld. ....lb.	.70½	-
Sodium benzoate, USP, 50-lb. bgs., c.l., t.l., frt. alld..		
ton-lots, same basis ....lb.	.83½	-
100-lb. dms., c.l., t.l., same basis. lb.	.86½	-
ton-lots, same basis. ....lb.	.89	-
	.92	-

Sodium bicarbonate, USP, powd., reg. grade, bgs., c.l., t.l., works, frt. equald. .... 100 lbs.	17.05	-
coarse, same basis. .... 100 lbs.	18.05	-
fine, same basis .... 100 lbs.	17.20	-
gran., same basis. .... 100 lbs.	17.85	-
gran., fine, same basis.... 100 lbs.	17.60	-
Sodium bichromate, gran., bgs. c.l., t.l., works, frt. equald. ....lb.	.57	-
Sodium bifluoride, 400-lb. dms., c.l., frt. equald. ....lb.	.78	-
100-lb. bgs., c.l., same basis. ...lb.	.76	-
Sodium bisulfate, bulk, c.l., works. . . ton	175.00	-
dms., c.l. .... 100 lbs.	13.00	-
Sodium bisulfite, anhyd. bgs., c.l., t.l., works, East. .... 100 lbs.	28.50	-
works, West .... 100 lbs.	32.00	-
Sodium bisulfite, soln., 38%, bulk, 100% basis, works, East.... 100 lbs.	20.60	-
soln., 100%, bulk, works, West 100 lbs.	20.00	-
photographic grade, 43% soln., works. .... 100 lbs.	21.90	-
Sodium borate NF. gran., bgs., c.l., works. ....lb.	.51	-
powd., same basis. ....lb.	.52	-
Sodium borohydride, powd., dms., 1000-5000 lbs. works.....lb.	19.88	21.90
Sodium borohydride, stabilized water soln., 12% $NaBH_4$, 100% basis, 3000 gal. tankwagon, works. lb.	17.45	-
Sodium bromide, 99%, gran., 400-lb. dms., f.o.b. works. ......lb.	1.04	-
Sodium carbonate, decahydrate, bgs, c.l., t.l., works. ....ton.	264.00	-
Sodium carbonate, cryst. monohydrate (see Soda, ash)		
Sodium carbonate, monohydrated, bgs., c.l., t.l., works. ..... ton	392.00	-
Sodium carboxymethyl cellulose (see CMC.)		
Sodium chlorate, crystal, bulk, t.c., t.t., delivered, N.E. .... ton	330.00	-
delivered, S.E. .... ton	335.00	-
Sodium chlorate, cryst., 450-lb. dms., c.l., works. E. ....lb.	.27	-
Sodium chloride, tech. (see Salt.)		
Sodium chloride, USP, gran., bgs.. . lb.	.29	-
Sodium chlorite, tech., dms., c.l., works. ....lb.	1.17	1.27
Sodium chromate, anhyd., dms., c.l., t.l., works ....lb.	.67	-
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works ....lb.	.64	-
Sodium citrate, gran., anhyd., 200-lb. dms., c.l., t.l., N.Y. ......lb.	1.95	-
Sodium citrate, USP, gran., dihydrate, 100-lb. bgs., t.l., f.o.b. shipping point. ....lb.	.74½	-
Sodium cyanate, dms. 1,000-lb. lots, works. ....lb.	.85	-
Sodium cyanide, briquettes or gran., 99% min., 200-lb. dms, min., dlvd. ....lb.	.71	-
Sodium diacetate, anhyd., dms., c.l., works. ....lb.	.68	-
Sodium diacetate, FCC, 50-lb. bgs., t.l., dlvd. E. of Rockies .... lb.	.61	.67
Sodium diacetate, tech., 50-lb. dms., c.l., works ....lb.	.52	-
Sodium erythorbate, powd., gran., t.l. or mixed t.l., f.o.b. shipping point. ....lb.	2.60	2.85
Prices W. of Denver 2c. per pound higher.		
Sodium ferrocyanide, bgs, t.l., works. ....lb.	.60	-
Sodium fluoborate, tech., gran., dms., t.l., works, frt. equald. .... lb.	1.77	-
Sodium fluoride, white, 97%, 400-lb. dms., c.l., works, frt. equald.. lb.	.6345	-
100 bgs., c.l., same basis. ....lb.	.60	-
USP powd., 200-lb. dms., t.l., f.o.b. shipping point ......lb.	4.69	-
Sodium formate, bgs., c.l., works . . lb.	.20	-
Sodium gluconate, tech., 50-lb. bgs., 2,500 lbs. or more frt. alld. . lb.	.60	-
Sodium hydride, oil dispersion, 60% NaH, 167-lb. dms., 10 dms., works. ....lb.	1.86	-
Sodium hydrosulfide. (see Sodium sulfhydrate.)		
Sodium hydrosulfite, dms., c.l., t.l., f.o.b. shipping point E ....lb.	.64	-
Sodium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald. ....lb.	.95	.96
Sodium hydroxide, tech. (see Soda, caustic.)		
Sodium hypophosphite, EN grade, 300 lb. dms f.o.b. works ......lb.	1.425	1.50
110 lb. dms. ....lb.	1.47	1.52
Sodium hyposulfite (see Sodium thiosulfate).		
Sodium iodide, USP, cryst., 300- to 500-lb. lots, dms. frt. equald.....lb.	14.72	-
Sodium lauryl sulfate, 30%, tanks, f.o.b. works ....lb.	.29	.32
Sodium lignin sulfonate, bgs., c.l., works. .... 100 lbs.	25.50	-
Sodium metabisulfite (see Sodium bisulfite).		
Sodium metaborate, octahydrate, gran., bgs., c.l., works ....lb.	.38	-
tetrahydrate, gran, bgs, c.l., works. ....lb.	.49	-
Sodium, metallic, 12-lb. bricks, dms., c.l. works ....lb.	.93	-
fused, dms. 24,000-lb. lots or more, works ....lb.	.67	-
tanks, works ....lb.	.70	.80
Sodium metaphosphate, tech. bgs., c.l., f.o.b. shipping pt. frt. equald .... 100 lbs.	61.50	-
food grade, bgs. c.l. f.o.b. frt. equald. .... 100 lbs.	66.25	-
Sodium metasilicate, anhyd., bgs., c.l works. .... 100 lbs.	27.25	-
bulk, c.l., works .... 100 lbs.	26.30	-
pentahydrate, bgs., c.l., f.o.b. shipping point. .... 100 lbs.	18.95	-
bulk, c.l. works. .... 100 lbs.	17.20	-
Sodium molybdate, anhyd., dms. f.o.b. works, 100 lbs and over... lb.	4.87	-
cryst., dms., t.l., same basis. ....lb.	4.12	-
Sodium naphthionate, dms., c.l., t.l., f.o.b. works. ....lb.	2.00	-
Sodium Nitrate, USP, bgs., c.l., f.o.b., frt. equald. .... 100 lbs.	34.50	-
Sodium nitrate, dom., industrial, bgs., c.l., works. .... ton	284.00	292.00
bulk, c.l., works. .... ton	250.00	-
imp., coml., 100-lb. bgs., c.l., Atl., or Gulf whse. .... ton	205.00	214.00
bulk, c.l., same basis. ...... ton	182.00	-
imp., agricultural, bulk, c.l., same basis. .... ton	140.00	-
Sodium nitrite, USP, dms., c.l., works, frt. equald. .... 100 lbs.	37.25	-

Sodium orthosilicate, tech., anhyd., bgs., c.l., works ..... 100 lbs.	34.50	-
Sodium orthosilicate, tech., hydrated, flake, dms., c.l., works. 100 lbs.	27.45	-
bgs., c.l., works. .... 100 lbs.	26.25	-
Sodium oxalate, 99%, bgs., t.l., works. lb.	.45	-
Sodium pentachlorophenate, beads c.l., 30,000-lb min. ....lb.	.67	-
bgs. ....lb.	.66	-
Sodium pentobarbital (see Pentobarbital-sodium).		
Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., works. ......lb.	.32½	.36½
Sodium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant .... lb.	.63½	-
55-lb. bgs. same basis ....lb.	.62	-
Sodium phenobarbital (see Phenobarbital-Sodium).		
Sodium phenosulfonate, powd., dms., lb.	.76	-
Sodium phosphate, anhyd., dibasic tech., bgs., c.l., t.l., works, frt. equald. .... 100 lbs.	54.50	-
food grade, same basis. 100 lbs.	57.50	-
Sodium phosphate, monobasic, tech., same basis. .... 100 lbs.	55.75	-
food grade, same basis. 100 lbs.	59.75	-
tribasic, tech., same basis. 100 lbs.	52.25	52.75
food grade, same basis. 100 lbs.	63.25	-
chlorinated, same basis. 100 lbs.	31.50	-
cryst., tech., same basis. 100 lbs.	30.50	-
cryst., food grade, same basis. .... 100 lbs.	35.50	-
USP, dried, powd., bgs., dms., works. ....lb.	.19	.20½
Sodium picramate, tech., paste. 200-lb. dms., dry basis, dlvd. . . lb.	5.50	-
Sodium propionate, dms., 2,000 lbs. or more, f.o.b. frt. alld. ......lb.	.54	-
Sodium pyrophosphate, acid, tech., bgs., c.l., works, frt. equald. . 100 lbs.	58.25	-
food grade, non-leavening, bgs., c.l., works. frt. equald. . . 100 lbs.	61.25	-
Sodium pyrophosphate, ferric, dms., c.l., t.l., works. ....lb.	.3880	-
Sodium pyrophosphate, tetrabasic, anhyd., tech., bgs., c.l., t.l., works, frt. equald. . . 100 lbs.	44.75	-
bulk, hopper cars, same basis. .... 100 lbs.	42.50	-
food grade. bgs., c.l., t.l., same basis. .... 100 lbs.	53.00	-
Sodium salicylate, USP, cryst., 200-lb. dms., 1,000-lb. lots or more, works, frt. equald. ....lb.	3.00	-
USP, powd., 200-lb. dms., 1,000-lb. lots or more, same basis... lb.	3.05	-
Sodium sesquicarbonate, bulk, c.l., t.l., works. ....ton.	170.00	-
bgs, c.l., t.l. works .... 100 lbs.	198.00	-
Sodium silicate, solid, or glass, 3.22-3.25 ratio, bulk, c.l., t.l., works. .... 100 lbs.	15.70	-
bgs., c.l., t.l., works... 100 lbs.	27.75	-
1.95-2.00 ratio, bulk, c.l., t.l., works. .... 100 lbs.	20.30	-
bgs., c.l., t.l., works..... 100 lbs.	22.15	-
soln., 37.6° solid, 3.22-3.25 ratio, bulk, c.l., t.l., frt. equald. .... 100 lb.	6.30	-
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of Na_2O.		
Sodium silicofluoride, bgs., c.l., t.l., works, frt. equald. . . 100 lbs.	17.95	19.75
Sodium stannate, dms, wks. frt. alld. E. lb.	N.A.	-
Sodium sulfanilate, dms, works. ...lb.	.22	-
Sodium sulfate, NF XII, powd., dms., 2,000-lb. lots. ....lb.	.23½	-
tech., detergent, rayon-grade, c.l., works. Gulf. .... ton	90.00	95.00
Sodium sulfate, West, bulk, c.l., works, frt. equald. .... ton	90.00	101.00
bulk, c.l., East, same basis ... ton	113.00	114.00
Sodium sulfate, photo grade, 100-lb. bgs., c.l., works. .... ton	47.00	53.00
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald. .... ton	500.00	-
liq., 44-46%, tanks, works, frt. equald. .... ton	500.00	-
Sodium sulfide, flake, dms., c.l., works, E., frt. equald. .... ton	470.00	-
bgs., same basis .... ton	410.00	-
Sodium sulfide, fused, dms., c.l., works, E., frt. equald. ... ton	240.00	-
Sodium sulfite, anhyd., tech. 95-100% bgs, f.o.b. works ... 100 lbs.	23.76	-
Sodium sulfocyanide CP (see Sodium thiocyanate).		
Sodium tetraborate (see Borax).		
Sodium tetrasulfide. liq. 34%. dms., c.l., works., frt. equald. . . ton	540.00	-
Sodium thiocyanate, purif., cryst., 250-lb. dms., 5 dms. or more f.o.b. works. ....lb.	3.26	-
tech., anhyd. dms., 2,000 lbs. or more, works. ....lb.	.97	-
Sodium thiosulfate, tech., photo- grade, anhyd., 100-lb. bgs., c.l., t.l., works, frt. equald. .... 100 lbs.	46.50	-
cryst. pentahydrate, c.l., t.l., same basis. .... 100 lbs.	28.50	-
Sodium titanate, dms., c.l., works. . lb.	.14¼	-
Sodium trichloroacetate, 95%, 50-lb. bgs., c.l., frt. alld. E. ......lb.	.28	-
Sodium tripolyphosphate, tech., bgs., c.l., t.l., works. frt. equald. . 100 lbs.	39.75	-
bulk, hopper cars, same basis. 100 lbs.	37.50	-
food grade, bgs., c.l., t.l., same basis. .... 100 lbs.	46.50	-
Sodium tungstate, tech. high moly., dms., 10,800 lbs. or more, frt. alld. ....lb.	5.00	5.50
Folin grade dms., 10,800 lbs. or more, same basis. ......lb.	8.00	-
Sodium-ammonium phosphate, purif., cryst., dms., works. .....lb.	.62	-
Sodium-formaldehyde sulfoxylate, dms., t.l., f.o.b. works. ....lb.	.91	-
Sodium-zirconyl sulfate, dms., 1,000-lb. lots or more, works. ...lb.	.28	-
tech., dms., any quantity, works.. lb.	.16	-
Solvent naphtha, petroleum, straight aromatic, b.r. 320°-350°F, 56°F m.a.p., tanks:		
New Jersey .... gal.	1.52	-
Houston .... gal.	1.41	-
Illinois .... gal.	1.54	-
Solvent naphtha, petroleum, straight aromatic, b.r. 360°F-410°F, 60°F m.a.p., tanks:		
New Jersey .... gal.	1.30	1.35
Houston .... gal.	1.30	-
Illinois .... gal.	1.30	1.35
Sorbic acid, t.l. dms., dlvd. ....lb.	2.20	3.10

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Sorbitan monostearate, dms., c.l., t.l., 30,000 lb. min., f.o.b. works. ....lb.	.76	-
Sorbitan tristearate, c.l., t.l., 30,000 lb. min., f.o.b. works. ....lb.	.80	-
Sorbitol, USP, reg. 70% aqueous, dms., c.l., f.o.b. shipping point. ....lb.	.35	-
tanks, f.o.b. shipping point. . lb.	.30	-
gran., dms., c.l. t.l., works ......lb.	.70	.74
powd., dms., c.l., t.l., works .....lb.	.68	.72
Soybean meal (See Oils, Fats & Waxes market report.)		
Soybean oil (See Oils, Fats & Waxes market report.)		
Soybean oil acidulated, soapstock, 95% acid, tanks, New York lb.	.14	.15
Soybean oil, acid, dbl., dist., dms... lb.	.48	.59
tanks. ....lb.	.43	.44
s.d., dms. ....lb.	.47	.58
tanks ....lb.	.38	.43
Spearmint leaves, imp., bls. ....lb.	2.50	2.70
Spearmint oil, Far West, native ....lb.	14.00	15.00
Midwest, native ....lb.	10.00	12.00
Far West, Scotch ....lb.	15.00	15.50
Midwest, Scotch ....lb.	14.50	15.25
Spruce oil, dms. ....lb.	6.00	-
St. John's bread, edible, bls. ....lb.	.29	.30
Stannic chloride, anhyd., dms., works. ....lb.	N.A.	-
Stannic oxide, dms., works. ......lb.	N.A.	-
Stannous chloride, anhyd., dms. wks . lb.	N.A.	-
Stannous fluoborate, liq., conc., dms., t.l., works, frt. equald. ....lb.	2.50	-
Stannous oxide, dms., works. .....lb.	N.A.	-
Stannous sulfate, dms., works. ....lb.	N.A.	-
Stearic acid, double pressed, bulk . lb.	.26	.39
single-pressed, bulk. ....lb.	.28	.375
triple-pressed, bulk ....lb.	.32	.40
Stramonium leaves, bgs. ....lb.	.15	.20
Streptomycin sulfate, USP, bulk. .kilo.	47.00	-
Strontium carbonate, glass grd., bgs., t.l., works. ....lb.	.37¼	-
Strontium nitrate, 50-15 bgs., c.l., works. .... 100 lbs.	51.50	-
Styrene monomer, 99.6% min., t.c., t.t., f.o.b. works ....lb.	.22	.27
Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant ....lb.	.77	-
cryst., bulk, same basis ......lb.	.77	.81
clear, same basis ....lb.	.77	.81
Styrol acetate, dms. ....lb.	2.35	-
Succinic acid, purif., cryst., dms., t.l., frt. alld. ....lb.	2.00	2.10
Succinic anhydride, dms., c.l., t.l., f.o.b. work. ....lb.	1.71	-
Sucrose, refd., white, bgs., c.l., f.o.b. refy. E. .... 100 lbs.	33.10	-
Sucrose acetate, isobutyrate, 90% dms., t.l., dlvd. ....lb.	1.16	-
tanks, dlvd. ....lb.	1.10	-
100%, dms., t.l., dlvd. ....lb.	1.18	-
Sucrose octa-acetate, denaturing grade, 100-lb. dms., f.o.b. works. .... kilo	12.50	13.50
Sulfabenzamide, dms., 500 kilos. .kilo.	39.50	-
Sulfabenzamide-sodium, dms., 500 kilos. ....kilo.	25.00	-
Sulfacetamide, USP, dms., 500 kilos. ....kilo.	20.00	23.50
Sulfadiazine, USP, powd. dms., 500 kilos. ....kilo.	53.00	-
Sulfadiazine-sodium, USP, dms., 500 kilos. ....kilo.	40.70	-
Sulfamerazine, USP, microcrystals, dms., 500 kilos. ....kilo.	33.60	-
USP, powd., dms., 500 kilos... kilo.	32.00	-
Sulfamethazine-sodium, USP, powd. dms., 50 kilos. ....kilo.	13.00	-
Sulfamethazine, powder, dms., 500 kilos ....kilo.	9.00	10.00
Sulfamic acid, cryst., bgs., c.l., t.l., works. .... 100 lbs.	38.00	41.00
Sulfamic acid, gran., dms., c.l., t.l., works. ....lb.	.36	-
Sulfanilamide, NF, reg. 1,000-lb. dms., frt. equald. ....lb.	2.00	-
Sulfanilic acid, tech., bgs., t.l., f.o.b. works. ....lb.	.67½	-
Sulfaquinoxaline, veterinary, grade, dms. ....lb.	8.00	-
Sulfur, crude, bright, molten, dom., f.o.b. vessels, Gulfports .... long-ton	150.00	-
f.o.b. La. refy .... long-ton	125.50	-
recovered, dlvd., Houston . long-ton	125.50	-
ex terminal, Rotterdam ... long ton	135.00	-
f.o.b. tanks, Alberta, Canada, for US delivery .... long-ton	102.00	-
dark, ex-Tampa, Fla. .... long-ton	157.50	-
Sulfur, crude, 99.5% min. purity, coml. flour, 50-lb. bgs., c.l., mines basis .... 100 lbs.	13.60	-
lump, same basis. .... 100 lbs.	13.60	-
Sulfur, refd., 99.5% min. purity, rolls 50-lb. bags, c.l., mines basis .... 100 lbs.	17.50	-
flour, light, 50-lb. bgs., same basis .... 100 lbs.	20.00	-
Sulfur, refd., sublimed, NF, 99.85% min. purity, 50-lb. bgs, c.l. mines basis .... 100 lbs.	26.00	-
Sulfur, rubbermakers, 99.5% min. purity, coml., reg., 50-lb. bgs., c.l., mines basis .... 100 lbs.	14.60	-
fine, 98% min. passing through 325 mesh, same basis .. 100 lbs.	15.60	-
Sulfur dichloride, dms., c.l., works, frt. equald. ....lb.	.24	-
tanks, same basis ....lb.	.17¾	-
Sulfur dioxide, liq., bulk, t.c., t.t., f.o.b. works. .... ton	230.00	-
Sulfur monochloride, dms., c.l., works, frt. equald ....lb.	.22½	-
tanks, same basis ....lb.	.16¼	-

CHEMICAL PRICES

WEEK ENDING OCT. 24, 1986

Sulfuric acid, virgin 100% tanks, works,			
East Coast	ton	71.75	95.90
Gulf Coast	ton	75.00	88.40
Midwest	ton	80.25	-
Southeast	ton	68.15	-
West Coast	ton	85.00	-
NOTE: For prices on 60 and 66 Be., multiply by .7767 and .9319, respectively. For price of 20% fuming oleum, as is, add $3-$4 to above prices and multiply by 1.045.			
Sulfuric acid, smelter, 100% tanks, works,			
Gulf Coast	ton	48.00	52.00
New Mexico	ton	20.00	25.00
Southeast	ton	63.15	-
93%, tanks, dlvd., Northwest	ton	60.00	65.00
Sunflowerseed oil, crude, f.o.b. Minneapolis	lb.	.14¾	.16½
Superphosphate, triple, 46% or more, a.p.a., run-of-pile, bulk, c.l., Fla.	unit-ton	2.75	3.05
bulk, gran., c.l., Fla.	ton	160.00	165.00

T

Talc, dom., grd. New York bgs., c.l., works	ton	84.00	-
99.5%, 325 mesh, bgs., c.l., works	ton	84.00	90.00
Talc, dom., 99.5%, 400 mesh, micronized, bgs., c.l., works	ton	187.00	236.00
625 mesh, micronized, bgs., c.l., works	ton	200.00	-
dom., ord., Calif. grd., bgs., c.l., works	ton	90.00	-
ord., Vermont, off-color grd., bgs., c.l., works	ton	136.00	-
imp., Canadian, grd., bgs., c.l., works	ton	70.00	84.00
Tall oil, crude, Southeast, tanks, works, frt. equald.	ton	90.00	100.00
Tall oil, refd., acid, same basis	lb.	.31	-
dist., tanks, same basis	lb.	.19	.23
Tall oil acids, 2% or more rosin, tanks, works, frt. equald.	lb.	.20½	.23½
less than 2% rosin acid	lb.	.22	.27
Tallow (see Oils, Fats & Waxes market report.)			
Tallow, fatty acids, tech., non-ret. dms., c.l., dlvd	lb.	.37	.40
tanks, dlvd.	lb.	.29	.45
hydrogenated, tech., flake, bgs., c.l., dlvd	lb.	.37	.33
tanks, dlvd.	lb.	.35	.42
Tangerine oil, Fla., dms. f.o.b.	lb.	10.50	11.00
Italian, dms.	kilo	52.90	-
Tankage, animal feeding, 9-11%, NH_3, New York, bulk	unit-ton	5.50	-
Tankage, fert. grade (see Nitrogenous process tankage).			
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots	lb.	8.09	-
tech., powd., dms.	lb.	4.62	-
Tar acid oil, 15-18% t.l., dms., f.o.b works	gal.	1.40	-
25-28%, t.l., dms., f.o.b. works	gal.	1.59	-
50-53%, t.l., dms., f.o.b. works	gal.	1.87	-
Tartaric acid, NF, bgs.	lb.	1.20	1.50
Tellurium, metallurgical, f.o.b. works	lb.	12.00	-
Terpinhydrate, NF, imp., cryst., powd., 36 kilo drums, f.o.b. ship. pt., frt. equald.	lb.	1.35	-
Terpineol	lb.	1.10	1.50
Terpinyl acetate, extra, dms	lb.	2.40	-
prime, dms.	lb.	1.35	2.05
Terpinyl propionate, dms	lb.	4.50	-
Tetrachloroethylene, tech. (see Perchloroethylene).			
Tetrachloroethylene, USP, dms., c.l., t.l., works	lb.	.30¼	-
Tetraethyl orthosilicate, bulk, f.o.b. works	lb.	1.53	1.66
Tetraethylene glycol, tanks, frt. alld.	lb.	.87	-
Tetraethylene glycol diacrylate, t.l. dms., f.o.b. works	lb.	1.50	-
Tetraethylenepentamine, tanks, same basis	lb.	1.70	1.75
Tetraethylthiuram disulfide, tech., flake, dms., t.l., frt. alld.	lb.	.88	2.07
Tetrahydrofuran dms., c.l., t.l., f.o.b. works	lb.	1.02	-
tanks, same basis	lb.	.96	-
Tetrahydrofurfuryl alcohol tanks, f.o.b. Memphis, Tenn.	lb.	.90	-
Tetrahydrolinalool, syn., dms	lb.	7.20	-
Tetrahydrophthalic anhydride dms., c.l., t.l. f.o.b. works	lb.	.65	-
Tetrapotassium phosphate (see Potassium phosphate, tetrabasic).			
Tetrasodium pyrophosphate (see Sodium pyrophosphate, tetrabasic.)			
Thallium metal, dlvd.	lb.	35.00	-
Thallium sulfate, 99%, bbls., dlvd.	kilo	140.00	-
Theobromine, bulk f.o.b. works	lb.	4.00	4.50
Theophylline, USP, anhyd. 50-kilo dms., 10,000-kilo lots	kilo	12.00	12.95
Thiamine hydrochloride, USP 100-kilo dms., dlvd.	kilo.	27.00	31.00
Thiamine mononitrate, USP, 100-kilo., dms., dlvd.	kilo.	27.00	31.00
Thiodiphenol, 98%, dms., f.o.b. works	lb.	3.35	-
Thioflavin green toners, molybdated, PMA, dms.	lb.	5.40	6.05
tungstated, PTA, dms.	lb.	5.60	5.85
Thioglycolic acid, refd., dms., ton lots 100% acid basis	lb.	2.07	-
Thioindigoid maroon, dms., frt. alld.	lb.	7.50	-
reds, dms., frt. alld.	lb.	5.68	6.12
Thionyl chloride, high-purity, 99.6%, 24,000-lb. min. t.l., dms. frt. equald	lb.	.55	-
Thorium nitrate, purif., dms., 100-lb. lots or more, works	lb.	2.75	-
dl-Threonine, dms 10 kilos wks	kilo.	128.00	-
Thyme leaves, French, bgs.	lb.	1.45	-
Spanish, bgs.	lb.	.75	-
Thyme oil, NF, red, dms.	kilo	20.00	-
NF, white, dms.	kilo	22.00	-
Thymol, NF	lb.	3.75	6.15
Thymol iodide, dms., 100-lbs. f.o.b. works	lb.	52.30	56.20
Tin metal (NY composite)	lb.	N.A.	-
Titanium dioxide, anatase, bgs., 20-ton lots, frt. alld.	lb.	.77	.79
slurry shipments, 50-ton lots, dry basis, frt. alld.	lb.	.78	-
Titanium dioxide, rutile, reg., bgs., 20-ton lots, frt. alld.	lb.	.81	.84
slurry shipments, 50 ton lots, dry basis, frt. alld.	lb.	.84	-
Non-chalking rutile material costs 1c. per pound more.			
Titanium hydride powd. electronics grade, dms.	lb.	26.50	-
Titanium tetrachloride, tech., bulk, c.l., f.o.b. works	lb.	.30	.35
200-gal cylinders c.l., same basis	lb.	.50	-
Titanium sponge, 99.3%, fiber drums, less than 5,000 lbs. f.o.b. wks	lb.	4.85	-
Tobias acid, 2,000 lbs. or more	lb.	2.45	-
d-a-Tocopherols, 67%, dms	kilo	50.08	-
d-a-Tocopheryl acetate, 81% conc., dms.	kilo	57.49	-
d-a-Tocopheryl acid succinate, cryst., dms.	kilo	78.44	-
dl-a-Tocopherol, dms.	kilo.	27.40	-
dl-a-Tocopheryl acetate, USP 50-kilo dm. 1000 kilo min.	kilo.	16.00	18.50
50% dry powd., 50-kilo dm.	kilo	17.00	-
Tolu balsam, cns.	lb.	7.60	8.68
Toluene, petroleum, ind. or nitration, tanks			
Atlanta, Ga., dlvd.	gal.	.70	-
Bayonne, N.J., dlvd	gal.	.70	-
Baytown, Tex., f.o.b.	gal.	.70	-
Chicago, Ill. dlvd	gal.	.70	-
Clairton, Pa., f.o.b.	gal.	.70	-
Deer Park, Tex., f.o.b.	gal.	.70	-
Ft. Wayne, Ind., dlvd.	gal.	.70	-
Gulf Coast, spot, barges	gal.	.66	.67
Houston, Tex., dlvd	gal.	.70	-
New Jersey Metro, dlvd	gal.	.70	-
Philadelphia, Pa., dlvd	gal.	.70	-
Providence, R.I., dlvd.	gal.	.70	-
Toluene di-isocyanate (mixed isomers), 80%, 2,4- and 20% 2,6- isomers, jumbo tankcars, dlvd.	lb.	1.01	-
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	3.55	-
m-Toluidine, tech., bulk	lb.	3.10	-
o-Toluidine, tech., liq., dms. c.l.	lb.	.72	.75
bulk, same basis	lb.	.60	.64
p-Toluidine, tech. cast solid, dms., cl., works	lb.	1.80	1.85
Liq., tanks, same basis	lb.	1.70	-
flake, same basis	lb.	1.95	-
Toluidines, mixed, o-m-p, tech., liquid, c.l. f.o.b. works	lb.	1.03	-
bulk same basis	lb.	.95	-
Tolyltriazole, dms., 1,000-lb. lots, f.o.b. Cincinnati, Ohio	lb.	2.90	-
Tonka beans, Angostura, prime, 1,000-lb. lots	lb.	6.50	-
Toxaphene, dms., c.l., t.l., works	lb.	.38	-
Tragacanth gum, No. 1, ribbons, cns.	lb.	36.00	40.00
flaked powder	lb.	12.50	15.00
Triacetin tanks, dlvd. E	lb.	.75	-
Tributyl citrate, t.l., drums, f.o.b., works	lb.	1.70	-
Tributyl phosphate, tanks, works	lb.	1.65	1.77
Tributylamine, dms., c.l., dlvd	lb.	1.39	-
tanks, same basis	lb.	1.33	-
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b., works	lb.	.94	-
USP, 100-lb. dms., frt. equald.	lb.	.99½	-
1,2,4-Trichlorobenzene, pure, tanks, dlvd.	lb.	.61½	-
1,1,1-Trichloroethane, tanks, consumers, dlvd.	lb.	.40½	-
1,1,2-Trichloroethane, tanks, f.o.b. works	lb.	.42	-
Trichloroethylene, tanks, dlvd.	lb.	.38½	-
Trichloroisocyanuric acid, dms.	lb.	1.25	-
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65%, soln., non-ret. dms., 1,500-lb. lots, dlvd.	lb.	1.35	-
Tricresyl phosphate, tanks, f.o.b. works	lb.	1.60	1.76
Tridecyl alcohol, mixed isomers, tanks, dlvd.	lb.	.57	-
Triethanolamine, 85%, tanks, dlvd. E.	lb.	.45	.48
99%, tanks, same basis	lb.	.45	.48
Triethanolamine lauryl sulfate, tanks, f.o.b. works	lb.	.27¼	.27½
Triethylamine, dms., c.l., dlvd	lb.	1.33	-
tanks, same basis	lb.	1.20	-
Triethyl citrate, t.l., drums, f.o.b., works	lb.	1.82	-
Triethyl phosphate, tanks, dlvd.	lb.	1.15	-
Triethylene glycol, tanks, f.o.b. Gulf	lb.	.47	-
Triethylene glycol dipelargonate, tanks f.o.b. works	lb.	.29½	-
40-60% tanks, 100% basis, frt. equald.	lb.	.35	-
Triethylenetetramine tanks, frt. equald.	lb.	1.43	1.46
Tri-iso-tolyl trimellitate, f.o.b. works	lb.	.51	.55
Tri-isobutylene, tanks, dlvd.	lb.	.45	-
Tri-isopropanolamine, dms., c.l., frt. alld. E.	lb.	.57½	-
Trimethylamine, anhyd., tanks, frt. equald., 100%	lb.	.54½	-
25% soln., tanks, frt. equald., 100% basis	lb.	.63½	-
40% soln., tanks, frt. equald., 100% basis	lb.	.56½	.57
Trimethylolpropane bgs c.l. t.l. dlvd.	lb.	.73	-
Trimethylolpropane triacrylate, t.l. dms., f.o.b. works	lb.	1.50	-
Tripentaerythritol, tanks, frt. alld., E.	lb.	1.00	-
Triphenyl phosphate, dms., t.l., frt. equald.	lb.	1.64	.78
Tripropylene glycol tanks, frt. alld. E.	lb.	.64	-
Tris-(hydromethyl) nitromethane, solid, t.l. works	lb.	.605	-
Trisodium phosphate (see Sodium phosphate, tribasic)			
l-Tryptophan, dms, 25-kilo lots	kilo	62.00	65.00
Tung oil, tanks, imp. New York	lb.	.31	.33
Tungstic acid 92½%, dms., 1,750-6,000 lbs., works	lb.	12.65	-
Turmeric, Alleppey 5%	lb.	.65	-
Turmeric, Alleppey over 6%	lb.	.70	-
Turpentine, crude sulfate tanks, f.o.b. Southeast works	gal.	.70	.80

U

Ultramarine blue pigments, 550-2,000 lb.-lots, works	lb.	1.30	-
violet, same basis	lb.	2.20	-
Umber pigment, burnt, American, frt. equald	lb.	.13½	.15½
raw, American, dom., bgs., l.c.l., same basis	lb.	.13½	.14¾
Undecylenic acid, dms., works	lb.	2.70	-
Urea, 46% N, ind., bulk, 50-ton c.l., dlvd.	ton	200.00	220.00
46% N, agricultural, bulk, dlvd. Midwest	ton	200.00	215.00
46% N, agricultural, bulk, dlvd. West	ton	210.00	-
Uva-Ursi leaves, bls.	lb.	.22	-

V

Valerian root, Belgian, bgs.	lb.	.85	.85
Indian. bgs.	lb.	.45	-
Vanadium oxytrichloride, 3,000 lb. cyls., works	lb.	5.40	-
Vanadium pentoxide, tech., gran., per lb. of V_2O_5, 550-lb. dms., works	lb.	4.10	4.94
fused or flake, per lb. V_2O_5, 550-lb. dms., works	lb.	3.35	3.65
Vandyke brown, bags, t.l., frt. equald.	lb.	.27¼	-
Vanilla beans, Madagascar	lb.	37.00	-
Java, tins	lb.	27.00	30.00
Vanillin, USP, dms., f.o.b works	lb.	6.25	-
imp., dms.	lb.	4.75	5.00
Versinol Ag	lb.	.64	-
Vetiveryl acetate, dms.	kilo	60.50	-
extra	lb.	63.00	-
Vetiver oil, Bourbon, dms.	lb.	16.00	17.00
Haitian	lb.	26.50	-
Java	kilo	31.00	-
Victoria blue toners, molybdated, PMA dms.	lb.	6.20	6.30
tungstated, PTA, dms.	lb.	10.40	-
Vinyl acetate monomer, tanks, dlvd.	lb.	.39	-
Vinyl chloride monomer, polymer grade, tanks, f.o.b. works	lb.	.28	-
Vinyl ether, USP, anesthesia, 75-cc. bots., hospitals	bots.	1.56	-
2-Vinylpyridine t.l., dms. works	kilo.	7.81	-
tanks, works	kilo.	7.61	-
Vinyltoluene, bulk, f.o.b.	lb.	.67	.73½
Vitamin A, synthetic, dry, pharm., 500,000 A units per gm., 50-kilo. lots.	kilo	33.00	-
Vitamin A, liq. in oil, pharm., 1,000,000 A units per gram, 10 kilo lots	kilo	41.00	-
Vitamin A, feed grade, 650,000 units per gm.	kilo.	18.70	23.85
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., non-sterile, USP (cyanocobalamin), vials, 50-gram, lots	gram	8.00	9.75
Vitamin B_{12}-1% trituration of cryst. B_{12} (cyanocobalamin USP) with dicalcium phosphate, 25-kilo dms.	kilo.	10.75	12.75
Vitamin B_{12}, 0.1% trituration of cryst. B_{12} (cyanocobalamin USP) with mannitol, 25-kilo. dms.	kilo.	15.80	-
Vitamin B_{12}, cobalamin concentrate NF with mannitol. 1,000 mcg, per gram, dms, ...	per gram activity	19.45	-
Vitamin B_{12}, 1% Vitamin B_{12}, USP, absorbed on resin, 5-kilo dms., 500-gram lots, frt. alld.	per gram activity	15.65	-
Vitamin B_{12}, 1% cobalamin concentrate, NF, absorbed on resin, 5-kilo dms., frt. alld.	per gram activity	15.40	-
Vitamin B_{12}, 1% cyanocobalamin in gelatin, 2.5-kilo dms., frt. alld.	per gram activity	15.40	-
Vitamin C (see Ascorbic acid).			
Vitamin D (see Cholecalciferol)			
Vitamin D_2 (see Codliver and Fishliver oils).			
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Violet methyl toner (see Methyl violet toner)			

W

Warfarin 0.5%, dms., ton lots, frt. alld. New York or Chicago	lb.	.75	-
Wheat germ oil, cold-pressed,	gal.	16.50	17.50
cold-processed	gal.	14.00	-
White precipitate, USP, powd., 100-lb. dms., f.o.b. works	lb.	7.892	11.24
Whiting (see Calcium carbonate).			
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls.	lb.	1.35	-
leaves, bls.	lb.	1.75	-
400 mesh, bgs., c.l. works	ton	134.00	-
325 mesh, bgs., c.l. works	ton	117.00	-
high aspect ratio, bgs., works	ton	164.00	-
Wollastonite, t.l., f.o.b., producing plant. general grade	ton	200.00	-
325 mesh	ton	140.00	141.00
400 mesh	ton	160.00	-
1250 mesh	ton	500.00	-
Wool grease, USP (see Lanolin).			
Wormseed oil (see Chenopodium oil, NF)			
Wormwood oil, cns.	lb.	31.00	36.00

X

Xanthan gum, food 300-lb. dms., f.o.b. works	lb.	5.65	6.20
ind., grade, same basis	lb.	4.54	-
Xylene, petroleum, ind. or nitration, tanks			
Alliance, La., f.o.b.	gal.	.80	-
Atlanta, Ga., dlvd.	gal.	.80	-
Bayonne, N.J., dlvd.	gal.	.80	-
Bayonne, N.J. f.o.b.	gal.	.80	-
Baytown, Tex., f.o.b.	gal.	.80	-
Chicago, Ill., dlvd.	gal.	.80	-
Clairton, Pa.	gal.	.80	-
Ft. Wayne, Ind., dlvd.	gal.	.80	-
Gulf Coast, spot, barges	gal.	.75	.77
Houston, Tex., dlvd.	gal.	.80	-
New Jersey Metro, dlvd	gal.	.80	-
Xylene, petroleum, ind. or nitration, tanks			
Philadelphia, Pa., dlvd.	gal.	1.36	-
Providence, R.I., dlvd.	gal.	1.42	-
South Bend, Ind., dlvd.	gal.	1.37	-
m-Xylene, high purity, tanks, f.o.b. Texas City, Tex.	lb.	.36	-
o-Xylene, tanks, works	lb.	.125	[illegible]
p-Xylene, tanks, dlvd.	lb.	.195	-
m-Xylenediamine, dms., t.l., f.o.b. works	lb.	1.70	-
2,4-Xylidine, tech., liq., c.l., t.l. f.o.b. works	lb.	1.50	-
Xylidines, mixed, o-m-p., dms., c.l., t.l., f.o.b. works	lb.	1.00	-

Y

Yara yara, 25-lb. cns.	lb.	2.81	-
Yeast, pure brewer,s debittered, NF, Saccharomyces, t.l., f.o.b. works	lb.	1.10	-
Yerba, santa leaves, bls.	lb.	2.40	-
extra. bots.	lb.	26.50	31.75
Ylang-ylang oil, extra grade	lb.	23.93	-
grade 1	lb.	19.09	-
grade 2	lb.	15.90	-
grade 3	lb.	13.04	-

Z

Zein, bgs., 2,000-lb. lots	lb.	7.50	[illegible]
Zinc acetate, NF, dms.	lb.	1.00	[illegible]
tech., dihydrate, bgs. t.l., works.	lb.	1.60	-
Zinc borate, tech., 43% ZnO, 37% B_2O_3, 50-lb. bgs., 20,000-lb. t.l., f.o.b. works	lb.	.55	-
cryst., 37% ZnO, 49% B_2O_3, 250-lb. dms. 20,000 lbs. t.l. f.o.b. wks.	lb.	.89	-
Zinc chloride, USP, gran., dms.	kilo	9.79	-
Zinc chloride, tech., soln. 50%, tanks, f.o.b. Cleveland, Ohio	100 lbs.	20.20	-
Concord, N.C.	100 lbs.	20.20	-
Freeport, Tex.	100 lbs.	20.20	-
Old Bridge, N J.	100 lbs.	20.20	-
65 degree, same basis Cleveland, Ohio	100 lbs.	27.90	-
Concord, N.C.	100 lbs.	27.90	-
Old Bridge, N.J.	100 lbs.	27.90	-
70 degree, same basis Cleveland, Ohio	100 lbs.	29.70	-
Concord, NC	100 lbs.	29.70	-
Old Bridge, NJ	100 lbs.	29.70	-
72 degree, same basis Cleveland, Ohio	100 lbs.	33.20	-
Concord, NC	100 lbs.	33.20	-
Old Bridge, NJ	100 lbs.	33.20	-
Zinc chromate, bgs., dlvd.	lb.	1.12	[illegible]
Zinc cyanide, dms., c.l.	lb.	1.65	[illegible]
Zinc dust pigment type 1 & 2, dms., c.l., f.o.b. plant	lb.	.59	[illegible]
Zinc ethylenediamine tetracetic acid, 8.4% Zn., ammonia salt soln., t.c., t.l., f.o.b. works	lb.	.56	-
9% Zn., ammonia salt soln., t.c., t.l., f.o.b. works	lb.	.48	-
Zinc fluoborate, liq. conc., dms., t.l., works, frt. equald.	lb.	.66	-
Zinc metal, high grade, dlvd.	lb.	.44	-
Zinc naphthenate, liq. 8% Zn, dms., dlvd	lb.	.95	-
Zinc nitrate, tech., flake 300-lb. dms.	lb.	.34	[illegible]
Zinc oxide photo conductive, bgs., c.l., frt. alld.	lb.	.47¾	[illegible]
Zinc oxide, USP 50-lb. bxs., c.l., frt. alld.	lb.	.46½	[illegible]
Zinc oxide pigment, American process, lead-free bgs., c.l., frt. alld.	lb.	.40	[illegible]
Zinc oxide pigment, French process regular, bgs., c.l., frt. alld.	lb.	.41	[illegible]
Zinc phenolsulfonate, purif., gran., 250-lb. dms., t.l., frt. alld.	lb.	1.82	-
Zinc pyridinethione, 48% dispersion, dms., f.o.b. works	lb.	8.50	[illegible]
industrial grade		14.50	-
Zinc resinate precip. 7.2-7.6% Zn, dms., frt. alld.	lb.	.45	-
Zinc silicofluoride, dms., c.l., t.l., works.	lb.	.17	[illegible]
Zinc stearate, USP, bulk, t.l.	lb.	.92	[illegible]
Zinc sulfate, gran., monohydrate, industrial grade 36% Zn., bgs., c.l., works.	100 lbs.	28.50	[illegible]
agricultural grade powd., bulk, same basis.	100 lbs.	22.50	-
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works.	lb.	.43	[illegible]
Zinc undecylenate, dms., works.	lb.	4.67	[illegible]
Zinc-formaldehyde sulfoxylate, basic 200-lb. dms., frt. alld.	lb.	1.06	[illegible]
Zircon gran. bgs., bulk c.l., works.	ton	165.00	[illegible]
Zircon milled bgs., 200 and 325 mesh, c.l., works.	ton	225.00	[illegible]
Zirconium acetate soln., 25% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	[illegible]	[illegible]
22% ZrO_2, same basis	lb.	[illegible]	[illegible]
Zirconium hydride, powd., electronic grade, dms., works	lb.	[illegible]	[illegible]
Zirconium oxide, powd., coml., dms., 2,000 lbs. min.	lb.	[illegible]	[illegible]
electronic, same basis	lb.	[illegible]	[illegible]
insulating, stabilized, 325°F same basis	lb.	[illegible]	[illegible]
insulating, unstabilized, 325°F same basis	lb.	[illegible]	[illegible]
dense, stabilized, 30F, same basis	lb.	[illegible]	[illegible]
Zirconium oxychloride, liq., dms. 5-ton lots, works.	lb.	[illegible]	[illegible]

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DRYERS

Drum Dryers/Flakers
(1) 24" dia. x 36" Buflovac SS dble. drum dryer
(2) 32" dia.x 108" Blaw Knox CI dble. drum dryer
(1) 32"dia. x 17'6" Sandvik SS belt flaker
(1) 36"dia.x 10' Buflovak CI dble. drum dryer
(3) 42"dia.x120"Blaw Knox CI dble. drum dryer
(1) 48"dia.x 26" drum flaker, chrome plated drum
(1) 48"dia.x 40" CI flaker, mfg. by Buffalo Foundary
(1) 48"dia.x 40 drum flaker, nickel plated drum, mfg. Blaw-Knox

Fluid Bed
(1) 60 Kg. Aeromatic, Batch, 6'x9', 56,000
(1) 100 Kg. Aeromatic Model ST 100, sanitary SS
(1) Fitzpatrick Model FA 250, SS, 20 HP XP

Holoflite
(1) Western Precipitation Model P80SSO-A, twin screw, 12" dia. x 20' long, SS constr., jckt. rated 15 psi, complete with 7.5 HP vari-speed drive.
(1) New/Never-Used Joy Processor, CS, single screw, 16"x16' long, rated 110 psi @ 340° F., sprocket & chain drive by 1.5 HP varispeed drive.

Rotary Vacuum
(1) 200 Cu. Ft. Stokes, SS constr., complt.
(2) 165 Cu. Ft. Pfaudler, Double Cone, G/L, 30 &FV/80 psi jktd., 15 HP vari-drive
(1) 150 Cu. Ft. Blaw Knox, Nickel
(2) 132 Cu. Ft. Stokes, Nickel
(1) 72 Cu. Ft. Blaw Knox, SS
(1) 60 Cu. Ft. Titanium Double Cone
(1) 50 Cu. Ft. Gemco, 316SS sanitary, double cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 psig, 304/316SS
(1) 37 Cu. Ft. Gemco, SS
(1) 30 Cu. Ft. P-K Twin Shell, 304SS
(1) 20 Cu. Ft. Abbe Twin Cone, 304SS

Spray
(1) 30"x3' Bowen Laboratory w/3' cone bottom, SS constr., w/centrifugal atomizer, 3 HP blower & motor.(1)
(1) Niro lab size 32"diax2'w/2'cone w/centrif. atomizer SS contacts
(1) 18' dia. Bowen complt. system SS contacts, new 1976

CENTRIFUGES

(1) Delaval BRPX 309, SS, 20HP
(1) Unused Model B-10 Podbielniak, Alloy 20
(1) Sharples AS-26, SS
(2) Sharples AS-16P, 316SS
(1) Alfa-Laval SS Decanter, Horiz., Mdl. NX314
(2) Dorr Oliver Mdl. CH30 CSU "Merco," 316SS contacts, 150 HP
(1) Baker Perkins S-32 "Pusher Type," SS, 50 HP
(1) Bird 18" x 28", 316 ELC, contour bowl.
(2) Bird 24"x38", 316SS, 40 HP
(3) Sharples P-3000, 316SS, 30 HP
(1) Sharples P-1000, SS 20HP
(1) Unused Bird 36 x96, 317L SS
(1) Tolhurst 48" x 24" perf. basket, 316SS sanitary, auto. plow & discharge, rated 85 #/cu. ft. @ 900 RPM, 20 HP XP.
(1) Tolhurst 48" x 24" Batchmaster, 316SS, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Tolhurst 48"x24" Batchmaster, rubber lined, perf. basket, w/hydr. plow & 20HP hydr. drive
(2) Tolhurst 48" x 24" Batchmaster, Heresite lined, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Western states 48"x 24", 316 SS
(1) Fletcher 48"x 28" Suspended type, SS perf. basket, 20/10 HP
(1) Sharples Tornado 48" x 30", 316SS, perf. basket, 40 HP XP
(1) Alfa Laval Model MAPX 210 T24, SS wetted parts
(2) Sharples C-27, 316 SS, wetted parts, 40 HP
(1) Sharples C-20, Super-D-Hydrator, SS, 30 HP
(1) Dorr Oliver Mercone Screener Model C-400 X2, all SS, twin screw disch., 10 HP

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LIQUIDATION OF 160 M.M. LB./YR.
SODIUM TRIPOLYPHOSPHATE PLANT–KEARNY, N.J.

(1) 8'6" dia x 46'6" Bartlett Snow Rotary dryer, 316 SS, 100 HP
(1) 8' dia x 50' Louisville Steamtube Rotary dryer SS clad, 40 HP
(1) 11'6" x 70' Long Bartlett Snow Calciner, 316 SS, 1100° C, complete
(1) 12' dia C.E. Raymond Seperator, Single whizzer
(2) Roto-Clone Type N Wet Scrubbers SS constr.
(1) 10,000 gal. Mix tank, SS constr. 13' dia x 10', 30 HP
(2) 10,000 gal. Mix tanks w/int. coils, 13' dia x 10', 30 HP
(1) 4,300 gal. Storage tank, 304 SS, 9½' dia. x 8'
(1) 3,400 gal. Jkt. tank, SS constr. 150 psi jkt.
(1) 2,600 Storage Tank, SS constr., 7' dia. x 9'.
(1) Butler Building

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Various Sizes, C.S. & SS Construction
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EVAPORATORS

(1) 1 Sq. Ft. Artisan "Kontro" Ajust-O-Film sys., 316SS
(1) 1.4 Sq. Ft. Luwa Wiped Film, 316SS, 1.5 HP
(1) 1.4 sq. Ft. Luwa thin film SS
(1) 2.5 Sq. Ft. Rodney Hunt Turbo Film 347 SS
(1) 5.4 sq. Ft. Luwa filmtruder, 316LSS
(1) 6.64 Sq. Ft. Votator Evaporator System, 316 SS contracts, 15 psi & FV & int., 150 psi jkt.
(1) 8.7 Sq. Ft. Rodney Hunt Turbo-Film, 304 SS contact parts, 15 psi & FV/150 psi jckt.
(1) 10.8 Sq. Ft. Luwa SS Wiped Film Evap. System, 15/350 psi
(1) 19.5 Sq. Ft. Votator Turbo-Film, 304 Sanit. SS FV/150 psi 10HP
(1) 20 Sq. Ft. Kontro Horiz. Adjust-O-Film, 316ELC, 50 psig, 15 HP
(1) Approx 31 Sq. ft. Vert., Turbo-Film Processor, 304 SS Contacts
(1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryer, 304/316L SS
(1) 40 Sq. Ft. Kontro Adjust-O-Film, SS constr., 20 HP
(1) 47 Sq. Ft. Artisan rising Film, Hast. "C"
(1) Approx 51 sq. ft. Pfaudler Wiped film, 316 SS, 100/85 & FV
(1) 80 Sq. Ft. Kontro Wiped Film Syst., SS constr., FV/150 psi, 40 HP
(1) UNUSED 88 sq. ft. Luwa thin film dryer horiz. 316 L wetted parts, FV int., 150 psi sat steam jkt.
(1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 SS 15 psi int., 35 psi jkt 40 HP XP

BLENDERS

800 Cu. Ft. Jktd. Dbl.Rbn., CS
Approx. 480 Cu. Ft. CS, 75HP
UNUSED 460 Cu. Ft. Marion Paddle, CS, 75 HP
300 Cu. Ft. CS Dbl. Cone, 30 HP
400 Cu. Ft. J.H. Day Dbl. Ribbon Carbon Steel Contr. 40 HP (2)
200 Cu. Ft. KS 316SS Dbl. Cone
175 Cu. Ft. P-K Twin Shell, 316SS
150 Cu. Ft. J. H. Day Dbl. Ribbon Carbon Steel Contr. 25 HP (2)
69.3 Cu. Ft. CS Dbl. Cone, 7.5 HP
63 Cu. Ft. Marion Paddle, CS
60 Cu. Ft. 304 SS P-K, Twin Shell, w/int. bar
60 Cu. Ft. Gemco Dbl. Cone, 304SS
37 Cu. Ft. Gemco SS
30 Cu. Ft. P-K, 304 SS, W/liq. bar.
20 Cu. Ft. P-K, Twin shell, SS
16 Cu. Ft. Robinson Dbl. Rbn. CS
15 Cu. Ft. WC Marion SS
10 Cu. Ft. Gemco dbl. cone, CS, 1½HP
10 Cu. Ft. P-K Sanit Twin Shell 1½HP
10 Cu. Ft. Howes, CS, Dbl. Rbn.
5 Cu. Ft., SS, Dbl. Cone W/liquid-solids bar
10" P-K zig zag

FILTERS

Pressure Leaf
1–562 Sq. Ft., 316ELC, Hercules, 28 leaves
1–512 Sq. Ft., 316SS, Niagara, 21 leaves
1–400 Sq. Ft. R/L Sparkler
1–327 Sq. Ft., 304SS, Ind. Filter, 11 leaves
1–320 Sq. Ft. Durco 316 SS, 11 Leaves
1–259 Sq. Ft. Pronto Mdl. #3259, 75 psig
1–200 Sq. Ft., SS, Hercules, Horiz.
1–191 Sq. Ft. Enzinger, SS, Vert., 75 psi
1 – 157.64 sq. Ft. Sparkler model 55-5-28, 316SS
1–150 Sq. Ft. Horiz., 12 Vert. Leaf 316SS
1–135 Sq. Ft. Ni, Bowser, Vert.
1–35 Sq. Ft. Hercules Model 5, 316 SS, horiz. tank vert leaves 50 psi

Rotary Vacuum
1–56.5 Sq. Ft. KS, Inconel 600
1–56.5 Sq. Ft. K-S, 316SS, flexibelt disch.
1–87.92 Sq. Ft. Feinc, SS wetted parts, spring disch., 56" dia. x 6' face drum
1–132 Sq. Ft. Dorr Oliver, 304SS, maxibelt disch.
1–200 Sq. Ft. Elmco, 316SS, 8'x8'
4–250 Sq. Ft. D.O. 316L SS Precoat, 8" x10', sanit
1–250 Sq. Ft. K-S 316SS, coil disch.
1–300 Sq. Ft. Elmco, 316SS wetted parts, precoat type w/knife disch., 10" dia. x 10' drum, complt. w/control panel & aux. equipment
1–314 Sq. Ft. Elmco, precoat disch., 316SS
1–400 Sq. Ft. Elmco, CS, Precoat
1–500 Sq. Ft. Elmco, 316SS, belt disch.
1–3'x1' 316SS, knife disch.
1–3'x1' Dorr Oliver, FRP w/receiver & Nash H4 vac. pump, 10 HP
1–3'x 1' K-S comp. sys., 316 SS Flex-belt disch

RECENT PURCHASES

●● FILTER BONANZA ●●
Sparkler pressure leaf Filters, All stainless Steel Construction
1-Model #33D9 1-Model #184D
1-Model #18D12 1-Model #33S28

Model DASO - 6 Jkt Fitzmill, SS
Model DASO - 12 Jkt Fitzmill, SS
16"x 12"x 42" SS Pugmill, 3HP Varispeed
40"x20" Tolhurst centrifuge, Kynar lined, perf. basket
4500 Gal SS mixtank, 50 psi
3500 Gal SS mixtank, 50 psi
400 gal. G/L Pfaudler Vert Reciever, 55 Psi.
St Regis Bag Packer, Model#718 MLT.
5000 Gal. 304 SS Jcktd., Mix Tank
5,600 gal. 316 SS Mix Tanks (2)
2' dia. x 3' Chrome Plated Flaker
Alfa-Laval Centrifuge, Model NX214/314.
8000gal. CS, Ammonia Storage Tank, 250 PSI.
60 cu. ft.PK Blender 304 SS w/int. bar
63 cu. ft. C/S Marion Paddle Blender
175 cu. ft. PK Blender 316 SS
3.5 cu. ft. Prodex-Henschel Mixer, SS
500 liter Welex Mixers, SS
Littleford FKM-600 Mixer SS (2)
1750 gal. Reactor 316 SS, 15 PSI int. 40 psi Jckt
1000 gal. 316 SS Reactor, 15 & FV/50 psi jkt., 10 HP
1000 gal. 316 SS Reactor, 100/30 psi jkt., 10 HP

ATTRACTIVELY PRICED

1 - Approx. 51 Sq. Ft., Pfaudler, Wiped Film Evapor. 316 SS wetted parts ASME Coded,. Jacket rated 100 psi w/internal vacuum. Complete w/flange mounted motor to Pfaudler TW drive w/-mechanical seal, lubricator & integral heat exchanger.

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REACTORS

Glass Lined
4,000 Gal. Pfaudler, 100/90 psi, TW
4,000 gal Pfaudler, 50/30 psi
3,700 gal Glascote, 50 & FV/90 psi
3,000 gal Glascote, 50 &FV/ 90 psi
3000 gal Pfaudler, 75/90 psi
2,000 gal Pfaudler, 75/90 psi
1,000 Gal. Pfaudler, 100&FV/90 psi 4RW
1,000 Gal. Pfaudler, RA60 Series, 100 FV/90 psi, 4DW
1,000 Gal. Pfaudler, RA60 Series, 100 FV/90 psi, 4TW
800 Gal. SS clad, 60/60 psi
750 gal. DeDietrick, Phila drive
500 Gal. Pfaudler, 100&FV/85 psi, 8# drive

Stainless Steel
4,000 Gal. 316SS, Atmos./50 psi, withcoils
3,000 Gal. 347SS Blaw Knox, 150/50 psi
2,500 Gal. 316L SS, 75/75 psi, 150 psi int. coils
2000 Gal. Nooter Autoclave, 316L 200 psi, FV int. coils
2,000 Gal. Dusenberg, 316 SS, 15/30 FV int., 50 psi jkt.
1,750 Gal. 316SS Nolte, 1467/50 psi
1,500 Gal. 304SS, 10 HP Lightnin
1,500 Gal. 304 SS, 100/30 psi
1,000 Gal. 304SS, 250/80 psi
1,000 Gal. 316SS, 50/75 psi jkt
1,000 Gal. 316 SS, 15 & FV/50, 10 HP
1,000 Gal. 316 SS, 100/30 10 HP
750 Gal. 316SS, 75 & FV/50 psi
750 Gal. 304SS, 50/60 psi
600 Gal. 316SS, 3000psi, 10 HP
600 Gal. SS, 50 psi, 1.5 HP XP
500 Gal. 316SS, 55 & FV/55 psi
100 Gal. 316SS, 15/50 psi
100 Gal. 316ELC SS, 500/90 psi

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MIXERS

4.5 Gal. Kneader Master Cont., SS w/jkt.
5 Gal. AMK 304SS Jcktd. Kneader Extruder
15 Gal. W.C. Readco Sigma Blade Dbl. arm
25 gal. Readco DBL/Arm Sigma Blade jktd. S construction 15 H.P.
80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP varispeed
100 Gal., SS, Sigma Blade, Jcktd. 40 HP
200 gal. W-P CS dble arm Sigma blade, 20 HP
250 gal. AMK Kneader Extruder, Sigma Blades, CS construc, 40 psig, trough jkt
500 liter Welex hi intensity, SS contact parts
500 Gal. S-W Rubber Cement, CS, 2-10 HP motors (2)
Unused 1000 Gal. Sanitary 316SS B-K Dbl. Motor Change Can; 100&FV/165 PSI, 125HP
Littleford Model FKM-600D, SS
Littleford Model FKM-600S, SS
Littleford Model FKM-2000, SS, w/choppers
7 Cu. Ft. 304SS Nauta Model MBX-70
10.6 Cu. Ft. Nauta D-105, CS
Welding Eng. Model 2FV1V26 Twin screw Extruder, SS, Contacts, 150 psi
Koehring mdl. 350, 40 HP
NEW/NEVER USED 75/37.5 HP Hockmeyer Disperser

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CRA–2, 900 hp Drivers (2 Available)
RA–1, 350 hp Drivers (2 Available)
CMA–4, 400 hp Drivers (1 Available)

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*Six 10¼ x 17, Lined from 12¼ cast steel, 2000 PSI
Three 7⅛ x 17, forged steel
Three 5⅞ x 17, forged steel
Two 18 x 14
Two 29 x 14
Four 10½ x 8

CENTRIFUGALS
3M5/2M7, 2500 hp Driver
2M-10, 4000 hp Driver

*ATTENTION HBA FANS
Our Inventory includes many other cylinders compatible with these frames, other frames compatible with these cylinders, and other drivers for Reciprocating and Centrifugals. Call Jack Burch.

NEW ARRIVALS

12"x30" BIRD Centrifuge, 316 Stainless with 20 HP motor. (Ref #23692).

18"x28" BIRD Centrifuge, 316 Stainless 10 deg Bowl, 80:1, with 15 HP motor. (Ref #23693).

24"x38" BIRD Centrifuge, 316 Stainless 15/3 deg Bowl, 40:1, with 40 HP motor. (Ref #23694).

500 HP CLEAVER BROOKS BOILER, gas-fired, 17,250 PPH, 150 PSI, New 1971. (Ref #23695).

UNUSED 500 HP CLEAVER BROOKS BOILER, gas-fired, Series 700, 17,250 PPH, New 1975. (Ref #23696)

ALSO AVAILABLE

HEIL Rotary Dryer, Model 105-32, 3-pass, 10'6" Dia X 32' with 100 HP HEIL BLOWER ASSEMBLY. (Ref #20104).

(4) BELIOTT DEWATERING PRESSES, Model 2919 36" X 56", 304 Stainless, driven by 10 HP motors. (Ref #20106A & #20106B).

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Bird 36"x 72, 40x60 Horz. S/S
Delaval MAPX-207 S/S
KRAUSE-MAFEI 18.5" pusher S/S (rebuilt)
Sharples P-3400, P-4000 S/S
Westfalia SAMR 5036 S/S 15 HP
SHARPLES AS-16, 16V SS Clarifier (Rbt.)

DRYERS
370 cu. ft. S/S Conical Vac. Dryers.
Spray Dryer, Bowen 30" lab, Niro 48" utility S/S
Bowen 4' 6" # 2 Tower Spray Dryer S/S gas
Louisville 6x45 S/S rot. hot air steam

MIXERS
P/K 2, 10, 15, 75 cu. ft. S/S Tw. Sh. W/R
135 cu. ft. dbl. ribbon stl. jkt.
70, 120, 155, 255, cu. ft. S/S Dbl. Rib. jkt.
J.H. Day 7, 35 cu. ft. Nautas
B/P 50 gal. Stl. D/ARM Mixer Jkt.W/Drive
(2) Vrieco 100 cu. ft. S/S Nauta Mixers

FILTERS
FEINC 2x3, 5x7, S/S Rot. Vac. String
SPARKLER 450 sq.ft. S/S Horiz. tank sani.
Sperry 36x36 poly press 75 chambers
35,50,150,300 sq.ft. Press Leaf S/S & STL
12", 18", 24", 42", P/F Presses C.I. poly or S/S
Niagara 342 Sq.Ft. Filter SS hor. tank
4'x20' Straight Line Filter SS 7.5HP w/access.

SPECIALS
2000 Gal. Pfaudler G/L Reactor 15 HP agit & Baffle
SHARPLES Mark 3 14' S/S perf. Autobasket
SHARPLES Tornadomatic 48x30 316 S/S
M/G Homog. 200, 1,000, 1,200, GPH
Simpson 3FS/S Jkt. Mix Muller
S/S TANKS 6000, 10,000, 12,000, & 29,000 gal.
Fitz, D-6 Mill Jkt. Chamber, 7 HP
300 G Jkt. SS Groen kettle
(2) 12,000 Gal. FRP Vert. TANKS
Miro-Pulv. 1 SH S/S 5HP w/screw feed.

WE HAVE MANY MORE ITEMS - LET US KNOW WHAT YOU NEED

SPECIALS

Hull 48 & 180, Sq. Ft. Lyophilizers Stoppering
Hull 250 Sq. Ft. SS vac. Shelf Dryers
Westfalia centrifuges SAMN 15007 & SAMR 15037
Chemapec 19,000 gal. SS formenter agit. 120 HP
BP 100 gal. 15 VIM Sigma Mixer 30HP
Oakes SS mixer 8MB 3 vari
Sargent SS apron dryer 4'x20' & 12'x60'
Raymond 3036 Hsieh mills (2)
Shriver 36" ALP filter 316 SS 48 Chambers, plate shifters, hydraulic (2)
Change Can SS Vac. jkt. mixer with (2) 1000 gal. WC kettles 125 HPXP unused
FB 76" & 96" 4-roll L calenders.
FB 2 roll mill 60" & 84"
Banbury mixers # 3 A, 3 D, & #11 D
APV Paraflow pasteurizer type HX
New England-unscramblers-NEH 120 & 200

MIXERS

Ribbon Blenders SS, jkt., 30 & 200 cu. ft.
Ribbon Blenders 1½, 6, 17.5, 60 & 215 cu. ft.
Abbe Research cone mixer # 8 CV
Day Nauta MBX 990 jkt. 40&5 fHP
Day SS Nauta Mixers 52, 71, & 700 cu.ft.
P-K Conical Blenders 5, 15, 20, 60 cu.ft.
Day Pony Mixers SS 50, 60, 125, 175 gal.
Simpson Mullers SS 24", # 1F UNUSED & #2
FB Banbury mixers # 1, 3D, 9 & 11D

BAKER PERKINS JKT. MIXERS

750 gal. Sigma Bottom 400 HP
100 gal. Dispersion 15 JEM 2, chrome plate 50 HP
[illegible] gal. Sigma DNM bottom 20 HP (3)
[illegible] gal. Sigma JNM Tilt 20 HP
50 gal. Dispersion Mixer-Extruder 100 HP
15 gal. Sigma Tilt 15 HP
6 gal. Sigma AMK SS Mixer-Extruder
5 gal. Sigma Dispersion & Duplex SS (3)
½ gal. Sigma ½ HP vari

GREAT BUYS FROM LOCATION

(5) SS Ribbon Blenders 215, cu. ft., 54"x12' ASME full jacket 30 to 75 psi 40 H.P.
(1) As above but 30 cu. ft., 26"x99", 10 HP
Patterson Ball Mills Jkt. XP 2 each 4'x5' (25 HP), 5'x 6' (40 HP) & 6'x 8' (75 HP)
Louisville 6'x30' SS Rotary Dryer

(2) SWENSON TRIPLE EFFECT EVAPORATORS 15,000 & 7,000 lbs./HR., INCONEL & HASTELLOY

REACTORS–TANKS

2,000 gal. SS reactors 150 psi. jkt. agit. (2)
1,000 gal. SS reactors 150 psi, jkt., agit. (2)
Pfaudler 100 & 500 gal G/L reactors
2,150 gal. S.S. 100 psi 6'x9' (4)
2,500 gal. reactor 316 SS, 75 psi + Vac./150 psi jkt.

EVAP.–DRY CENTRIFUGE

Bird 36"x50" Hastelloy C centrifuge
Blaw Knox 1500 & 160 sq.ft. SS Evaporators
LUWA Thin Film 200, 173, 120 & 20 sq.ft.
VAC. oven 42" dia. x 60"L, 30 KW
STOKES Freeze Dryers 24 & 300 sq.ft.
BIRD 24"x38" S.S. Cont. Cent.
Bowen 10'x30'& 20'x80' SS spray dryer
Holoflite SS dryer-Chiller Model D1612-6
Abbe SS 2 cu. ft. conical vac. dryer

GENERAL

Reitz Prebreaker 300 HP SCR Drive
IR compressor 1000 cfm, 100 psi 200 HP
ROT-VAC. Filter 10'x18', 8'x8', 4'x6', & 3'x3'
YORK Turbomaster 7000 Ton Refrig.
STOKES Model 540,294, T-4 T Presses
Gaulin SS Homogenizers MC 18, MF 18 + MC 45

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NEW ACQUISITIONS

700 gal. Readco jktd. Sigma mixer, 400 HP
2 cu. ft. PK SS Twin Shell w/bar
23 cu. ft. SS Day double ribbon, 7½ HP
18"x28" 316 SS Bird Solid Bowl Centrif.
3TH Mikro Pulverizer 30 HP
STS-100 Aeromatic SS Fluid Bed Dryer
300 gal. Pfaudler G/L 25/90 psi, 3TW
Unused 70 cu. ft. Titanium dble cone vac Dryer
100 gal. DeDietrich G/L reactor, 30/75 psi mech. seal, 2HP New 1979
SS Ht. Exch.; 246,200, 125, 56, sq. ft.
10 gal. B-P Dispersion jktd., vac., 20 HP
7 gal. B-P Dispersion jktd., ram, 25 HP
2½ gal. Day SS Sigma jktd., vac., 10 HP
SS Littleford mixers w/choppers FKM 2000 D, 1200 D, 600 D, (4)
SS Twin Shell 40, 30, 20, 3 cu. ft.

REACTORS

2000, 1000, 750, 300 gal. G/L, mech. seals (7)
3000 gal. 316 SS 100/150 psi vari. agit.
3000 gal, 304 SS, 25/125 psi, ½pipe coil jktd., agit New 1974
2000 gal. 316 SS, 75/180 psi, agit.
1000 gal, 316 SS, 30 & FV/150 psi, agit.
500 gal., 316 SS, 75 & FV/70 psi, agit
24 more in stock from 10 to 300 gals., 304 & 316 SS. Call Now.

SS BLENDERS

69 cu. ft. SS Patt. cone, w/liquid bar
Ribbon/Paddle: 650, 200, 120, 70, 40, 23 cu. ft. (26)
Conical: 320, 200, 150, 130, 100, 75, 69, 40, 30, 20, 10, 5, 2 cu. ft. (18)
Twin Shell: 200, 100, 75, 40, 30, 20, 3 cu. ft. some with intensifiers (12)

MIXERS

Double Arm: 1000, 500, 300, 200, 150, 10, 7, 2½, gal. Sigma, jktd.
Pony: 125, 75, 100, 80, 60, 50 gal. (12)
Planetary: 100, 85, gal. vacuum
Dispersers: 75, 50, 40, 25, 20 15 HP (8)
Littleford: FKM 2000D, FKM 600D, D, FKM 130D, jktd. & choppers (3)

MISCELLANEOUS

Vac. Pumps: NASH: CL 2003, CL 1003, AT 2004, L5, MD 674 KINNEY: KDH 150, KD 30, KS 27, Stokes: 212 H 10.
Tablet Presses: STOKES, MANESTY, COLTON, All Sizes

FILTERS

42" Shriver poly, 50 ch., 4 eye
48" poly chambers, 1½" cake, 4 eye (150)
SS filter presses: 18",16",13",12"(7)
Sparklers: 33S9, 18D10, 8-6

CENTRIFUGES

48"x30", 40"x24", 316 SS auto-batch
40", 30", 26", basket, SS & R/L avail.
P5000, P3400, P3000, P2000, Sharples
40"x60", 24"x60", 18"x28", 6" Bird
DeLaval: NX 207, BRPX 207
Westphalia: SAMN 5036, SA 1435-076
HS36, HS24, S6, 316 SS B-P "Ter Meer"

MILLS/PULVERIZERS

Chilsonators: all SS, 4LX10D, 7LX 10D, 6LX16D
Fitzmills: F20, F6, D6 (8)
Mikro: 4TH, 3TH, 2DH, 2SCB, 1SH, SMA
3-Roll Mills: 16"x40" to 4"x8" (9)
Ball & Pebble: 8'x12' to 2'x2' (12)
Colloid: 50, 25, 15, 10, 5, 1HP
Raymond: 5057, 5047, 4237, 3036

DRYERS/EVAPORATORS

Wiped film: 173, 87, 25, 21.6, 12 sq. ft.
Belt Flakers: 48"x45', 20"x20'
Con. Vac.: 500, 100, 50, 40, 10, 2.5 c.f.
Rotary Vac.: 130, 40, 20, 10 cu. ft.
S.S. Fluid Bed: 100 kg, 60 kg, 30 kg, S.S.
Double Drum: 12"x18", 6"x8", S.S.
Flakers: 6'x5', 3'x6'6", drum
Rotary: 8'x70' to 2'x14' (12)

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22344-Christian ribbon mixer, 36 cu. ft. steel jacket, 7.5 HP, unitized.
22342-Sheet extrusion line, Prodex 4.5", 24:1 L/D, 50 HP, sheet die, chill roll stack, Famco shear.
22343-NRM Turret Winder, 48-46 w/2 adjusto speed motors, 1 HP
22346- Sheet Coater, 54" steam heated.
22345-Berringer 4.5" screen charger w/hyd. pump.
22277- Fitzpatrick, D6, S/S screw feed, 7.5 HP motor.
22275-Groen 60 gal., S/S 25 psi.
22271-Wil-Flo 226 gal., S/S, jkt. 60 psi.
22278-U.S. Bottlers B-2 Vac Filler, S/S
22267-Thermo King railroad car refrigeration system

22215-Wilmes Blatter Press, S/S, 38" dia. x 9'9" long, hortz. 5 HP, unitized. (2)

22252-UNUSED Bins, 4'6" OD, S/S 75 cu. ft. (6)
22257-UNUSED Tank, 100 gal., T304SS, 30" dia., DH
22253-UNUSED Tank, 550 gal., T304SS, 4' OD, DH.
22256-UNUSED Tank, 1200 gal., T304SS, 5' dia. x7'H, DH.
22255-UNUSED Tank, 1800 gal., T304SS, 6'6" dia. x 7'3" H, DH.
22254-UNUSED Tank, 3,000 gal., T304SS, vac., 5'dia x 21'H, coil.
22258 Heat Exchanger, 40 sq. ft., 12" CS shell, S/S tubes
22213-Sweco, 48" single deck, S/S. (5)
22214-Niagara, mod. 320-32, 350 sq.ft., S/S VT, S/S VL.

REACTORS

20252-Unused Reactor, 600 gal., 304SS dimple jktd.
10138-Pfaudler, 800 gal., T-316 L SS, 55 PSI int/150 PSI.
20928-Brighton, 4000 gal., 8' dia. x 10', 316 ELC S/S
20456-Reactor, 4,000 gal., 316 S/S, 8' dia. x 7'9" st. side.
15475-Brighton, 4000 gal., 316SS, vacuum.
20287-GH Hicks, 4000 gal., 316 SS, pipe coil jkt.
20923-Richmnd Eng. Reactor, 4600 gal., T316 stain/clad.
Pfaudler 10,000 gal. reactors T316L, 100 psi int, 180 psi.
Pfaudler 15,000 gal. reactor T316L, 100 psi int., 200 psi jkt.

MIXER/EXTRUDER

17654-AMK 25 gal. Mixtruder, Sigma, ST 7.5 HP.
18298-J.H. Day 25 gal. Dispersion, 25 HP vari main, 10 HP vari screw.
20996-AMK 30 gal. S/S, jkt. Sigma, 7.5 HP Main, 6 HP screw.
21334-Ross 40 gal., S/S hot oil jkt., Sigma 6" disch. screw.
19826-AMK 50 gal. ST, jkt., Sigma.
19421-AMK 75 gal. ST, jkt., Sigma, 10" disch. screw.
17138-AMK 120 gal., ST Sigma, 11.5" screw.
14832-AMK 150 gal., S/S, Sigma 15HP main, 10HP screw
19494-AMK 150 gal., S/S Sigma, 50 HP main, 10HP screw
20116-AMK 150 gal., ST. Sigma, 15 HP/10 HP
503527-New Aaron 300 gal., T304SS, mix extruder, Sigma, jkt., up to 200 HP main, 75 HP hyd. screw.
STILL INSTALLED.. CALL NOW!

21350-B.P. 500 gal. Sigma steel, jkt. 125 psi, 150 HP, Hyd. tilt

MIXERS – PLOW

503755-Littleford, FKM 600D, SS jacketed, 25 HP.
20754-Littleford, FKM 3000D 65 CF, S/S, full jacket.
19214-New Plow Mixer, 80 cu. ft. 347SS, jacket, 100HP.
20829-Littleford FKM 4200D, S/S, 87 cu. ft. JKT.

MIXER RIBBON

21120-Ribbon Blender, S/S, 10 cu. ft., jkt. SS, 150 psi.
20276-Read ribbon blender, 14.7 cu. ft. 304SS, 3 HP.
20616-Unused Day, 316SS, 23 cu. ft., 5HP.
20189-Robinson, 25 cu. ft., S/S, jacket, 10 HP.
20885-Int'l 34 cu. ft. S/S dbl. ribbon, 5 HP. (4)
20212-Haas ribbon, 36 cu. ft., S/S, 15 HP.
19266-Ribbon Mix 80 cu. ft. T304 SS, 5 HP (4)
19568-Howe, 115 cu. ft., sanitary S/S, double spiral ribbon.
20983-Strong Scott blender, 130 cu. ft., 304SS, 25 XP gear motor.
21124-Ribbon Blender, 304SS jkt., 160 cu. ft., 30 HP.
20614-Unused JH Day ribbon, S/S 270 cu. ft., 25 HP.
21114-JH Day ribbon blender, S/S clad, 75 HP, 480 cu.ft.

UNUSED CENTRIFUGES

21593-Sharples P5400 Sanitary Centrifuges w/200 HP motor, 25 HP backdrive, gearbox, 5" pitch conveyor, CIP, control panel (2) LATE MODEL.

CENTRIFUGES

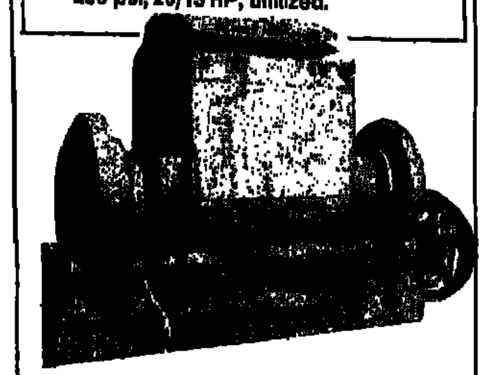
20827-Bird, 18"x24" steel, conical bowl.
20826-Bird, 24"x38" steel, con. bowl, gearbox.
20819-Bird, 24"x38", S/S, 15 degree, contour bowl.
20684-Bird 24"x60". H series, steel w/motor.
20384-Bird 32"x 50", SS T316 contour, 75HP.
12863-Bird 36"x96" contour, 10 deg., T317 ELC.
20137-Alfa Laval, NX 418-B31-60, 316SS, gearbox.
17308-Dorr Oliver, 304SS, Marco mdl. 16L, 30 HP.
13565-Sharples, mdl. P 600, gearbox, motor.
19767-Unused Sharples, 3 phase, P3000, S/S, carbide.
20407-Sharples P2000 316SS, 20 HP drive motor.
21359-Sharples P3000 w/gearbox.
20686-Sharples P3000, 52:1 gearbox, S/S casting.
21725-Sharples, P3400, S/S, gearbox & motor.
19249-Sharples, P5400, 316/317SS, 200 HP, gearbox.

CENT-BASKET VERT.

21408-Delaval 22"x16" perf. basket hyd. drive.
15815-Delaval Mark III, perf. basket, 40"x24", 316SS, 30 HP, hydr., drive.
19446-Sharples Sludge-Pak, SP-5500, 40"x24" basket centrifuge.

ROTARY VAC DRYER

22210-Bertrams, S/S 6'dia. x 12' dished heads, half pipe coil jacket 200 psi, 20/13 HP, unitized.



21459-Baker Perkins Mixer, dbl. arm, C/S, 300 gal. Geared both ends, 100 HP, mod. 18JUMMZ.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.

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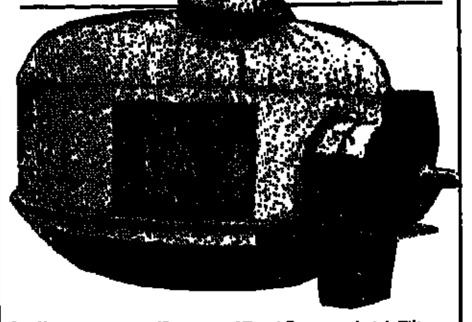
MUST MOVE STAINLESS TANKS
12,000 GAL., T304SS, 12'Dia.x 14' high, flat bottom, open top (16)
PRICE $8000 ea. FOB PA #20655

TANKS-S/S

21283-Tank, S/S vert., 1200 gal., 6' dia.x6', flat top & bot.
20651-Tank, SS, 9000 gal., agit., 12' dia. x 14'6" H.
20655-Tank, SS, 12000 gal., 12' dia. x 14', flat bottom, open top.
17043-Jos Oat horz. tank, 304SS, 16,000 gal., 12'6" dia. x 22'9½" long, 10 PSI.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
19799-Clow/Bethlehem filter press, 36", recess plates, 25 chambers.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" Ehd closer, 41 alum. plates.



21772-Drucknutsche (Rosemund Type) Pressure batch Filter, 117" Dia., 75 Sq. Ft., jacketed, agit. 15 HP, Side Discharge... Call Herb Landy (312) 350-2200

FILTER-ROTARY VAC.

15828-FE, Inc. 36" dia.x12", S/S, string disc., 1/2 HP.
17477-FE, Inc., 3' dia x 5', T316SS, belt disc., vac pump.
11177-Dorr Oliver S/S, 5' dia. x 6'L.
11653-Oliver T-316SS, precoat 5'3"x8'.
19431-K.S. flexibelt, 6' dia. x 6' face, 316SS.
18392-Eimco belt filter, 8'x10', steel drum, w/Nash pumps.
15827-Ametek, 8' dia.x14'0" face, maxi-belt, S/S.
17936-Eimco, 316SS, 10' dia. x 14', knife discharge.
17283-Impco belt filter, 12' dia. x 12', 304SS, Nash vacuum.
20251-K.S. T304, vacuum filter, 12' dia x 14', 304SS.
20323-Dorr Oliver 11'6"x16' face, S/S cont. parts.
11486-Eimco 10'x10' rotary vac. filter.

PRESSES

UNUSED Manesty Express, 10 ton, 20 stations.
11602-Colton Press mod. 260, 31 die stations, 1800 TAB.
21382-FJ Stokes rotary tablet, 16 station, 10 ton.
21418-Manesty rotary tablet, 16 station, 10 ton.
14425-Stokes Tab Press mod. #551, 51 station, 4 ton.
21417-FJ Stokes rotary, 27 station, 4 ton, double sided.
503861-Komerak Greaves, mdl. 75MSS briquetting press, 20.5" dia. x 4.5" face.
13392-Fitzpatrick Chilsonator, 50 HP, mdl. HA-50-30-210.
18802-Stokes single pucnh press, 900-530-1 (T4), 12 ton.
17224-Dorst compac., series TPA15, 20 tons.
10890-Stokes, mdl. R-4 press, 20 ton.

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DUST COLLECTORS

21125-Fabri-Jet jd. SQ9-4B bin vent, 42 sq. ft.
16398-Mikro dust collector, S/S, 63 sq. ft., mdl. 9-6-100, pulse jet.
21153-EVO, bin vent, 72 sq. ft., S/S, 5 HP
20253-Unused EVO pulse jet collector, mdl. 84BF009C, 90 sq. ft.
21192-JH Day mdl. RJ-16RJ36, 125 sq. ft., CS, 3 HP.
21222-Fabri-Jet, mdl. SQ16-80, 151 sq. ft.
20398-Pulse jet collector, "FlexKleen," mdl. 58CT24 AV II w/175 sq. ft., cloth, C.S.
21286-Mikro dust collector, 285 sq. ft., S/S.
20266-Unused EVO Corp. pulse jet dust collector, mdl. 99BF030C, 350 sq. ft.
20265-Unused EVO Corp. dust collector, shaker type, mdl. MS049C10, 575 sq. ft.

SCREENS

21203-Sprout Waldron sifter, D10, 6 decks.
21150-Sprout Waldron, D10, 1 HP, 10 decks, S/S cont.
21167-Sprout Waldron, D10, 2HP, 10 decks, S/S cont.

LIQUIDATION SALE

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LARGE POLYSTYRENE PLANT

21875-Bins, 176 cu. ft., S/S, cone bottom flat top. (4)
21891-Bins, 450 cu. ft., C/S, epoxy lined. (6)
21904-Bins, 450 cu. ft., C/S, epoxy lined. (6)
21905-Bins, 500 cu. ft., C/S, epoxy lined, flat top, conical bottom. (4)
21918-Worthington cent. pump, C/S, 15 HP, 200 GPM at 44 psig (2)
21916-Union Pump-inline, C/S, mod. 4x6x8.5 VCK, 40 HP. (3)

21906-Edw Renneburg Rot. Dryer, S/S, steam heat, 15 HP. (4)
21881-Heaters, C/S steam, type BNF 2420 (8)
21914-Flotronics bin vent, filters, 122 sq. ft. 12 bags

21889-Katron Feeder twin srew, S/S mod. 5400-150 (4)
21901-Sparkler filter, 352 sq. ft. C/S, mod. VR-32-32
21882-Screw conveyor, 304 SS, 7" dia. x 11L, 1.5 HP.
21888-Strong Scott Rib Blender, 25 cu. ft., 5 HP. (3)
21920-Welex extruder 6", 30:1 L/D, 400 HP.
21870-Welex extruder 8", 30:1 L/D, 600 HP.
21876-Conair pelletizor, S/S, mod. 1024, 40 HP. (2)
21874-Water bath, S/S, portable. (4)

21887-Ross Static Mixer, 304SS, 3"x6 element. (4)

21917-Ingersol Rand Pump, In-line pump, C/S, 30 HP.
21915-Goulds, C/S turbine pump, 200 HP. (2)
21913-Worthington cent. pump, S&S, 2 HP. (4)
21912-Union pump-inline, S/S, 7.5 HP (2)
21899-Pfaudler Reactor, 1,500 gal., 316L SS dimple jkt.
21896-Pfaudler Reactor, 10,000 gal. 316L SS clad, 60 HP. (4)
21900-Pfaudler Reactor, 15,000 gal. 316L SS dimple jkt. (3)

21897-Metal Arts Corp. vessel, 17,000 gal. vert. 317L SS. (2)
21910-Tank, 840 gal., flat top & bottom.
21920-Modern Welding Tank, 4800 gal. horiz. rubber lined.

21878-Gorman Rupp pump, centrifugal, C/S mod. 82E2
21871-Prodox extruder 8", 30:1 L/D ratio, 600 HP.
21892-Buffalo blower, size 30, C/S, 10 HP (3)
21908-Buffalo exhaust fan, size 36, type B, 15 HP.
21880-Sutor Bill Blowor, C/S, 40 HP. (4)
21922-Buffalo blower, type 40-3CB, 40 HP. (4)
21894-Buffalo blower, mod. 46-3CB, 75 HP. (3)
21883-Bird, 32 x 50 centrifuge, 80:1 gearbox. (4)

21883-Bird Centrifuge, 32x50, 80:1 gearbox.

21893-Environeering scrubber, mod. A33-14000
21895-Tank, 850 gal. vert. coal tar epoxy lined.
21911-Tank, 5400 gal. vert. C/S epoxy coated flat top/bot.
21903-Tank, 50,000 gal. vert. C/S epoxy, flat bot. conical top.
21898-Brighton Corp. Tank, 12,000 gal. vert., solid 316L SS. (5)
21902-Worthington compressor, mod. 4BB-3, vert. 125 psi. (2)
21879-Sweco sifter 60", mod. LS60S88, 2.5 HP.
21923-Kason sifter 60", mod. K601SS, S/S, 1 HP.
21884-Flotronics Cyclone mod. FTHEC370-T, 304 S/S 12" dia. dish top. (3)

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PLANT WAS IN OPERATION THRU APRIL OF 1986
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COMPLETE REACTOR SYSTEMS...WASTE TREATMENT PLANT
...ROTARY VACUUM DRYERS... CENTRIFUGES...TANK FARMS
...AND MUCH MORE!
JUST A PARTIAL LISTING OF EQUIPMENT:

CENTRIFUGES
ALL316SS EQUIPMENT COMPLETE WITH CONTROLS, PLOWS, SET UP FOR NITROGEN PURGE EACH INDIVIDUALLY SKID MOUNTED
48"x24", 40"x24" SHARPLES S/S, HYDRAULIC DRIVE (5)
30"X15" SHARPLES "TORONADO-MATIC," SS WITH HYDRAULIC DRIVE

CHILLERS
3, 25, 30, 40, 100 TON

COMPRESSORS
INGERSOLL RAND XLE-16-10x7, 150 HP, 100 PSIG (3)
INGERSOLL RAND XLE-15 ¾-10x7, 125 HP, 70 PSIG

DRYERS
DOUBLE CONE VACUUM SYSTEMS: DEDIETRICH G/L, 60 CU. FT.
PFAUDLER G/L, 70 CU. FT.
DEVINE 316SS, (1) 30, (2) 70, (2) 90 CU. FT. SYSTEMS
316SS ROTARY VACUUM DRYER SYSTEMS (3) 142, (1) 120 CU. FT.
SHELF: 6 VACUUM DRYER SYSTEMS
VARIOUS SIZES & MATERIALS OF CONSTRUCTION
SS & CS ROTARY VAC. DRYERS: 125, 100, 90, 80, CU. FT.

FILTERS
FILTER PRESSES: ERTEL PRESSURE LEAF (6)
STAR 18" DIA., 19 & 21 CHAMBERS, SS
SPERRY 56", 28 & 35 CHAMBERS (4)
VACUUM BELT EXTRACTORS: 2 EIMCO 2'x12', 3 16SS VAC. BELT FILTER SYSTEMS
40 FILTER PRESSES 42" 43" 48" 56" POLY PRO, R/L CAST IRON
4 PASSAVANT MDL. 200 VAC-U-PRESS BELT FILTERS, 250 SQ. FT

FIRE PREVENTION EQUIPMENT
INCLUDING: DIESEL POWERED FIRE PUMP...NEW IN 1984
ELECTRIC POWERED FIRE PUMP 150 HP

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100 CU. FT. MUNSON SS DOUBLE RIBBON BLENDER SYSTEM
LITTLEFORD MDL. FKM2000-0, 73.5 CU. FT.
70 CU. FT. DAY, SS RIBBON BLENDER SYSTEM

MILLS
BAUERMEISTER TURBOMILL, 40 HP, COMPLETE SYSTEM
FITZPATRICK MDL. D6 DASO 7.5 HP COMMINUTORS 7.5 HP
FITZMILL MDL. DKSO12 COMMINUTOR
ENTOLETER MILL 5 HP, MDL. M1112G1-23

100'S OF PUMPS

REACTORS
GLASS LINED
11 SS JKT. AGIT. KETTLES FROM 750 GAL. TO 5,000 GAL.
(1) 3,000, (7) 2,000, (22) 1,000 (8) 500, (2) 300, (1) 200, (1) 130, (4) 100, (4) 50, (1) 30 GALLON
ALL REACTORS EQUIPPED WITH TW DRIVES, MECHANICAL SEALS MANY WITH VARIABLE SPEED DRIVES, GLASS RECEIVERS & GRAPHITE HEAT EXCHANGER
STAINLESS STEEL 316 & 316 ELC
(1) 4,000, (1) 3,000, (3) 2200, (8) 2000, (1) 1,300, (2) 1,250, (9) 1,100, (7) 1,000, (7) 500, (2) 300, (1) 30, (1) 10 GALLON

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SMITH MOLECULAR ROTA-FILM MDL. 700-12-P, SKID MOUNTED
SOLVENT RECOVERY SYSTEM
OTHER DISTILLATION COLUMNS AVAILABLE

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750 GAL. 304 SS READCO MIXER SIGMA
SHARPLES SS MODEL P-3400 CENTRIFUGE UNUSED (3)
6M² ROSENMUND (NUTSCHE TYPE) 316 SS FILTER
4,200 GAL. HAST C REACTOR 125 FV/175
UNUSED 1000 SQ. FT. HAST C HEAT EXCHANGER

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GLASS LINED RECEIVERS & CHEMSTORS
(2) 2,000, (10) 1,000 (1) 500, (4) 250, (5) 100, (2) 50 GALLON
STAINLESS STEEL
(1) 5,000, (1) 4,000 (1) 3,000, (8) 2,000 (3) 1,500, (4) 1,000, (1) 800, (7) 500, (1) 300, (3) 250, (5) 200, (1) 150, (3) 100, (3) 50 GALLON

TANK FARMS
GLASS LINED: (2) 10,000, (1) 5,000, (2) 2,000 GALLON
STAINLESS STEEL 316SS & 316LSS: (10) 10,000, (1) 8,000 (3) 7,500, (2) 6,000, (3) 5,000 (3) 4,000 GALLON
KYNAR LINED: 30,000 GALLON
HERESITE LINED: (1) 10,000 GALLON
LITHCOTE: (1) 10,000 GALLON
RUBBER LINED: (3) 10,000 GALLON
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10'x 12' EIMCO ROT. VAC. FILTER
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REACTORS: 15,000 GAL. 316 L SS AGIT. 10'6"x 23'
4,000 GAL. G/L BODY, 100FV/150FV JKT
(4) 3,300 GAL. SS 60/30 HP AGIT. 110 PSI INT. W/COILS
(1) 3,300 GAL. SS 30 HP, 6TW, 300 PSI INT. W/COILS
(2) 2,000 GAL. L SS, 75/200 PSI JKT
TANKS: 6,000 GAL., 4,000 GAL. MONEL V (4)
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CHEMICAL IMPORTS

Continued from Page 39

ican Apollo) Santos, 9/26
American Shpg 100 dms (11,019 lbs) (Santa Catarina) Paranagua, 9/24.
METHOXYCITRONELLAL Curto & Funk 1 dms (428 lbs) (Britta Thien) Rotterdam, 9/29
METHYL METHACRYLATE Degussa 1 tnk (39,925 lbs) (Koln Express) Bremerhaven, 9/23.
METHYL PARABEN 202 dms (22,266 lbs) (Zim Tokyo) Haifa, 9/21.
METHYL VIOLET CRYSTALS Livingston Intl Freight 60 dms (3,798 lbs) (Neptune Jade) Hong Kong, 9/22.
METHYLENE CHLORIDE 1 bks (1,097,889 lkbs) (Stolt Prido) Rotterdam, 9/29.
METHYLENE GLYCOL 1 bks (7,054,087 lbs) (Stolt Vincita) Aratu, 9/30.
MISTOLIN LIQUID Olberia Foods 3,491 cs (93,920 lbs) (Sandra) Haina, 9/26.
MONOCHLORACETIC ACID FLAKES Leschaco 1,188 bgs (134,260 lbs) (Dusseldorf Expres) Antwerp, 9/30.
MONOETHYLENE GYLCOL Ganlrado 1 bks (9,226,230 lbs) (Porsanger) Jubail, 9/21.
MONOPOTASSIUM L ASPARATATE HYDRATE Kyowa Hakko 25 dms (3,086 lbs) (Louis Maersk) Kobe, 9/25
MONOPROPYLENE GLYCOL 1 bks (1,101,782 lbs) (Sandra Farber) Tarragona, 9/21.
MONOSODIUM GLUTAMATE Ajinomoto 720 dms (77,999 lbs) (Minerva) Santos, 9/18.
3,240 bgs (246,809 lbs) (Bacol Santos) Santos, 9/24.
2,520 dms (507,001 lbs) (Bacol Santos) Santos, 9/24.
Pfizer 2,160 bgs (114,048 lbs) (Santa Catarina) Santos, 9/24.
Von Schleven 1 con (40,565 lbs) (Bacol Santos) Santos, 9/24.
Ajinomoto 3,800 bgs (197,753 lbs) (Itape) Santos, 9/24.
NAPHTHALENE DERIVATIVES Meiko Warehousing 30 dms (0 lbs) (Tohbei Maru) Kobe, 9/22.
NATURAL BARIUM SULFATE Ore & Chemical 20 pkg (40,812 lbs) (Ever Greet) Hamburg, 9/24.
NATURAL MENTHOL CRYSTALS Sarcom 20 dms (2,403 lbs) (American Apollo) Santos, 9/26
NEOPENTYL GLYCOL Huels 1,000 bgs (45,873 lbs) (Strathconon) Rotterdam, 9/25.
Nuodex 1,000 bgs (45,873 lbs) (Strathconon) Rotterdam, 9/25.
NEROLY BLANC 1 dms (410 lbs) (Minerva) Rio D Janeir, 9/18.
NIACIN Lonza 300 dms (36,376 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.
600 dms (72,752 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.
NIACIN Lonza 720 bgs (40,953 lbs) (Dusseldorf Expres) Bremerhaven, 9/30.
NICKEL CATALYST PRICAT 9900 Capital City Products 72 dms (26,382 lbs) (Ever Greet) Antwerp, 9/24.
NICOTINAMIDE Viotachem Reilly Tar 1,600 bgs (89,242 lbs) (Koln Express) Antwerp, 9/23.
20 bbg (36,023 lbs) (Dusseldorf Expres) Antwerp, 9/30.
NITRILE RUBBER 5 plt (11,733 lbs) (Dart Atlantica) Felixstowe, 9/23.
Crown Automotive Sales 1,282 plt (2,310 lbs) (Zim Tokyo) Haifa, 9/21.
NITROCELLULOSE IND Fayette Chemical 112 dms (40,144 lbs) (Zim Tokyo) Barcelona, 9/21.
Haniel Phoenix Transport 10 dms (0 lbs) (Sea Land Voyager) Bremerhaven, 9/24.
NN DIMETHYLANILINE 2 tnk (80,732 lbs) (Koln Express) Antwerp, 9/23
90 dms (43,254 lbs) (Ever Greet) Antwerp, 9/24.
NONANOL 1 bks (2,205,211 lbs) (Stephanie) Rotterdam, 9/27.
NOPYL ACETATE Curto & Funk 3 dms (1,448 lbs) (Britta Thien) Rotterdam, 9/29.
Savino Del Bene 20 dms (9,782 lbs) (Pilar) Valencia, 9/26.
NUTMEG OIL Fritzsche Dodge & Olcott 18 dms (7,476 lbs) (Hoegh Cairn) Padang, 9/24.
24 dms (9,936 lbs) (Hoegh Cairn) Padang, 9/24.
O DIANISIDINE Bemo Shpg 190 dms (31,497 lbs) (Ming Star) Kobe, 9/21.
O ETHYLPHENOL Panalpina 5 dms (0 lbs) (Sea Land Voyager) Rotterdam, 9/24.
OCOTEA CYMBARUM OIL SASSAFRAS OI 138 dms (48,069 lbs) (Santa Catarina) Itajai, 9/24.
OLEORRESIN SPANISH PAPRIKA Torna Trdg 6 dms (2,910 lbs) (Dragor Maersk) Valencia, 9/24.
ORTHO PARA TOLUENESULFONAMIDE Taub Hummel & Schnall 80 bgs (35,626 lbs) (Hanjin Long Beach) Busan, 9/26.
120 dms (35,049 lbs) (Hanjin Long Beach) Busan, 9/26.
ORTHO TOLUIDINE DIHYDROCHLORIDE Exxon Ind 135 dms (23,095 lbs) (Hanjin Long Beach) Busan, 9/26
OXALIC ACID Atlas Intermodal Transport 720 dms (40,000 lbs) (Ming Star) Keelung, 9/21.
T R America Chemicals 1,430 bgs (79,445 lbs) (Bacol Santos) Rio D Janeir, 9/24.

P-R

P ACETOAMINO BENZENE SULFONYL CL 720 bgs (40,785 lbs) (Ming Star) Kobe, 9/21.
P DIAZO DIPHENYLAMINE SULFATE Leading Fwdrs 14 dms (1,720 lbs) (ming Star) Kobe, 9/21
P DIAZODIPHENYLAMINE SULFATE 40 dms (0 lbs) (Louis Maersk) Kobe, 9/25.
P HYDROXYBENZOIC ACID Mobay Chemical 600 bgs (34,304 lbs) (Dusseldorf Expres) Antwerp, 9/30
P TOLUENE SULFONYL CHLORIDE Bemo Shpg 80 dms (31,746 lbs) (Ming Star) Kobe, 9/21
PARA ACETAMINOBENZENE SULFONYL C Mitsui 420 dms (51,852 lbs) (Ming Star) Kobe, 9/21
PARA AMINO ACETANILIDE 100 dms (13,228 lbs) (American Utah) Kobe, 9/29.
PARA METHYL BENZYL CHLORIDE Leading Fwdrs 10 dms (4,960 lbs) (Ming Star) Yokohama, 9/21
PARA TERT BUTYLBENZALDEHYDE 80 dms (35,626 lbs) (Ever Govern) Osaka, 9/30.
PARACETAMOLE POWDER 720 dms (40,032 lbs) (American Utah) Kobe, 9/29.
PARAFFIN PETROLEUM WAX Astor Wax 36 plt (81,7[illegible] lbs) (American Ohio) Felixstowe, 9/26
PARAFORMALDEHYDE Ashland Chemical 8 plt (18,078 lbs) (Sea Land Adventur) Algeciras, 9/24
PENTAERYTHRITOL Degussa 881 bgs (44,438 lbs) (Dart ATlantica) Bremerhaven, 9/23.
Montedison 20 plt (40,476 lbs) (Ever Summit) Leghorn, 9/24.
PERFLUORO OCTANE SULFONIC ACID Crescent Chemicals 1 bxs (11 lbs) (Dusseldorf Expres) Hamburg, 9/30
PERUVIAN LIME DISTILLED OIL Citrus & Allied Essences 8 dms (3,386 lbs) (Santa Rita) Callao, 9/30
PHOSPHORIC ANHYDRIDE 595 dms (40,926 lbs) (Ever Summit) Fos, 9/24.
POLYAMIDE POLYMERS SYNTH RESIN A Schulman 384 mix (32,192 lbs) (Ever Greet) Antwerp, 9/24
POLYBUTADIENE RUBBER TAIPOL Mitsubishi Intl 64 cs (169,437 lbs) (Neptune Jade) Kaohsiung, 9/22
POLYBUTYL ETHANATE Isis Chemicals 24 dms (3,086 lbs) (Dusseldorf Expres) Rotterdam, 9/30
POLYCARBONATE RESIN Shuman Sales 600 bgs (33,863 lbs) (Ming Star) Kobe, 9/21
POLYETHYLENE Merck 390 hgs (18,629 lbs) (Itapoi) Santos, 9/24.
POLYPROPYLENE RESIN Marubeni America 800 bgs (44,312 lbs) (Ever Govern) Tokyo, 9/30
POLYTETRAFLUOROETHYLENE Sumitomo of America 420 dms (12,555 lbs) (Tohbei Maru) Kobe, 9/22
POLYVINYL ALCOHOL Marubeni America 400 bgs (18,042 lbs) (Louis Maersk) Kobe, 9/25.
POLYVINVYL CHLORIDE Riverdale Mills 792 bgs (45,194 lbs) (Atlantic Cartier) Gothenburg, 9/22.
POTASSIUM BROMATE Amenbrom 107 dms (0 lbs) (Zim Tokyo" Haifa, 9/21.
POTASSIUM CARBONATE L B Russell Chemicals 400 bgs (44,321 lbs) (Zim Tokyo) Haifa, 9/21.
POTASSIUM CHLORATE T R America Chemicals 144 pkg (43.947 lbs) (Sea Land Adventur) Algeciras, 9/24.
POTASSIUM CYANIDE Degussa 1,080 dms (122,399 lbs) (Dusseldorf Expres) Bremerhaven, 9/30
POTASSIUM FLUORIDE Allied 4 kgs (28,318 lbs) (Sea Land Voyager) Rotterdam, 9/24.
91 dms (5,456 lbs) (Koln Express) Bremerhaven, 9/23
POTASSIUM FLUOROBORATE La Porte 80 kgs (18,589 lbs) (Atlantic Cartier) Liverpool, 9/22
POTASSIUM FLUOROTITANTE Mitrans 680 bgs (38,190 lbs) (Ming Star) Yokohama, 9/21.
POTASSIUM HYDROXIDE Autotype 9 pcs (4,883 lbs) (Atlantic Cartier) Liverpool, 9/22.
POTASSIUM PERMANGANATE American Intl 360 dms (43,265 lbs) (Sea Land Voyager) Rotterdam, 9/24
POTASSIUM TITANIUM FLUORIDE La Porte 90 kgs (20,681 lbs) (Atlantic Cartier) Liverpool, 9/22
PSEUDOEPHEDRINE Graymor Chemical 20 cln (1,279 lbs) (American Maine) Hong Kong, 9/23.
PSYLLIUM SEED HUSKS F W Myers 960 bgs (93,124 lbs) (American Utah) Khor Frkkan, 9/29.
R SALT 300 bgs (22,311 lbs) (Neptune Jade) Hong Kong, 9/22.

S-T

SEEDLAC Parks 280 bgs (47,037 lbs) (Vishva Pankaj) Algeciras, 9/25.
SESAME OIL Nishimoto Trdg 20 ctn (243 lbs) (Ming Star) Yokohama, 9/21.
Jlc Intl 2,800 ctn (35,825 lbs) (Ming Star) Yokohama, 9/21.
SESAME SEED Great Lakes Intl Trdg 880 bgs (44,440 lbs) (Saint Louis) Haina, 9/19.
H F SCHMID 2,400 bgs (108,862 lbs) (San Pedro) Haina, 9/26.
Sucher Imports 1,840 bgs (91,998 lbs) (Saint Louis) Haina, 9/19.
Tacher Imports 800 bgs (44,616 lbs) (San Pedro) Haina, 9/26.
SODIUM AZIDE Brauner Intl 40 dms (4,850 lbs) (Ming Star) Kobe, 9/21.
SODIUM BICARBONATE Vitusa Products 1,185 bgs (121,079 lbs) (Ever Greet) Antwerp, 9/24.
SODIUM BROMATE Ameribrom 81 dms (0 lbs) (Zim Tokyo) Haifa, 9/21.
SODIUM CHLORITE Degussa 238 dms (44,396 lbs) (Dusseldorf Expres) Hamburg, 9/30.
SODIUM FLUORIDE CRYSTALLINE Trans World Shpg 700 bgs (38,973 lbs) (Ever Govern) Osaka, 9/30.
SODIUM HYDROXIDE Mallinckrodt 336 dms (39,185 lbs) (Dart Atlantica) Bremerhaven, 9/23.
Heino Jobman 5 dms (0 lbs) (American Maine) Jeddah, 9/23.
SODIUM METAPERIODATE Sodium Metaperiodate 7 dms (882 lbs) (Dart ATlantica) Felixstowe, 9/23.
SODIUM NAPHTHIONATE Oriex Chemicals 660 bgs (30,412 lbs) (Ming Star) Kobe, 9/21.
SODIUM PERSULFATE Degussa 20 bbg (42,857 lbs) (Koln Express) Hamburg, 9/23.
SODIUM TRIPOLYPHOSPHATE big 1 bgs (110 lbs) (Koln Express) Antwerp, 9/23
[illegible] 80 bgs (4,409 lbs) (Thutmose) Alexandria, 9/30
A A Saya 100 bgs (5,512 lbs) (Thutmose) Alexandria 9/30
Alexandria Intl Trdg 200 bgs (11,023 lbs) (Thutmose) Alexandria 9/30
STANNOUS OCTOATE Sattva Chemicals 23 dms (13,843 lbs) (American Apollo) Buenos Aires, 9/26
SULFAMERAZINE Richard Boas 30 dms (3,571 lbs) (Dusseldorf Expres) Hamburg, 9/30
SULFAMIC ACID Accord Shpg 1,800 bgs (88,825 lbs) (Hanjin Long Beach) Keelung, 9/26.
American Intl Chemical 1,800 bgs (90,538 lbs) (Ming Star) Keelung, 9/21
1,800 [illegible] (Ming Star) Keelung, 9/21.
Marubeni America 770 bgs (39,037 lbs) (Ever Govern) Osaka 9/30
[illegible] dms (40,000 lbs) (Ever Govern) Osaka, 9/30
Accord Shpg 1,600 bgs (79,807 lbs) (Hanjin Long Beach) Keelung, 9/26
TITANIUM DIOXIDE Archway Chemical & Supply 800 bgs (40,120 lbs) (Sea Land Adventur) Algeciras, 9/24
Dorsett & Jackson 2,640 bgs (132,410 lbs) (Sea Land Adventur) Algeciras, 9/24.
Leschaco 5,120 bgs (215,236 lbs) (Dusseldorf Expres) Antwerp, 9/30
N L Ind 1,800 bgs (90,858 lbs) (Dart Atlantica) Antwerp, 9/23
5,200 bgs (268,109 lbs) (Sea Land Voyager) Rotterdam, 9/24
3,700 bgs (162,789 lbs) (American Ohio) Rotterdam, 9/26
4,800 bgs (256,562 lbs) (Dusseldorf Expres) Antwerp, 9/30
640 bgs (33,340 lbs) (Tadeusz Kosciuszki) Bremerhaven, 9/22
720 bgs (39,174 lbs) (Tadeusz Kosciuszki) Bremerhaven, 9/22
Leschaco 760 bgs (39,467 lbs) (Koln Express) Antwerp, 9/23
Kemira 2,280 (118,770 lbs) (Tadeusz Kosciuszki) Bremerhaven, 9/22
N L Ind 3,200 bgs (163,952 lbs) (Atlantic Cartier) Gothenburg, 9/22
48 plt (122,964 lbs) (Britta Thien) Hamburg, 9/29
TITANIUM SPONGE LUMPS Sumitrans 120 drs (72,[illegible] lbs) (Ever Govern) Osaka, 9/30.
TRICHLOROISOCYANURIC ACID Eurocontral 343 drs (40,188 lbs) (Zim Tokyo) Barcelona, 9/21.
TRICHLOROACETIC ACID Roussel 120 dms (14,[illegible] lbs) (Ever Greet) Hamburg, 9/24.
TRIETHANOLAMINE 73 dms (39,912 lbs) (Koln Express) Antwerp, 9/23
TRIMETHYLOLPROPANE Leschaco 1 con (42,064 lbs) (Koln Express) Rotterdam, 9/23
TRIOXAN Haniel Phoenix Transport 20 dms (0 lbs) (Sea Land Voyager) Bremerhaven, 9/24.
TRIPOLYPHOSPHATE Browning Chemical 400 [illegible] (41,711 lbs) (Britta Thien) Hamburg, 9/29
TURMERIC POWDER Indian Groceries & Spices 200 [illegible] (11,464 lbs) (Hoeg Cairn) Bombay, 9/24

U-Z

ULTRAMARINE BLUE Whittaker Clark & Daniels 727 bgs (40,860 lbs) (American Ohio) Felixstowe, 9/26
ULTRAMARINE PIGMENT Whittaker Clark & Daniels [illegible] bgs (41,495 lbs) (Sea Land Voyager) Rotterdam, 9/24
UREA FORMALDEHYDE 1,840 bgs (90,388 lbs) (Zim Tokyo) Haifa, 9/21
820 bgs (45,194 lbs) (Zim Keelung) Haifa, 9/29
820 bgs (45,194 lbs) (Zim Tokyo) Haifa, 9/21.
820 bgs (45,194 lbs) (Zim Keelung) Haifa, 9/29
41 bin (45,194 lbs) (Zim Keelung) Haifa, 9/29
VINYL PYRROLIDONE 1 con (39,903 lbs) (Britta Thien) Rotterdam, 9/29
VITAMIN B-12 J M Rodgers 80 dms (3,571 lbs) (Dusseldorf Expres) Hamburg, 9/30
WINTERGREEN OIL Dattel Shpg 40 dms (5,644 lbs) (American Maine) Hong Kong, 9/23
WOOL GREASE Amerchol 80 dms (37,688 lbs) (Columbus Australia) Pt Chalmers, 9/19.
YELLOW CARNAUBA WAX Michelman 462 bgs (46,5[illegible] lbs) (Minerva) Fortaleza, 9/18
ZINC STEARATE Ciba Chemical 720 bgs (34,17[illegible] lbs) (Pilar) Genoa, 9/26.
Sattva Chemicals 420 bgs (12,500 lbs) (American Apollo) Buenos Aires, 9/26

Waste Deadline Coming Soon

Environmental Protection Agency sent notices to hazardous waste treatment, storage and disposal facilities last week, reminding them that as of November 8, 1986, solvents and dioxin-containing waste must be treated before disposal.

Under 1984 amendments to the Resource Conservation and Recovery Act (RCRA), the land disposal of most untreated hazardous wastes must be banned over the next five years.

The agency's first action under this requirement applies to solvents and dioxin-containing wastes. Before Nov. 8, EPA says it will issue final treatment standards for these wastes, based on the best demonstrated available technology (BDAT).

In his letter to waste facility operators, EPA assistant administrator for solid waste and emergency response J. Winston Porter says it is expected that some solvent and dioxin wastes will be granted extensions due to a shortage of available treatment capacity.

"However, it is not likely that concentrated spent solvent wastes will not be granted such an extension, unless these wastes are generated by small quantity generators," he says.

Carbide Specialty

Continued from Page 4

working to improve comonomer blends of VLDPE, very low density polyethylene, the latest addition to the "Unipol" product line.

New power cable research revolves around developing ultra-pure resin and insulating material, and smooth interfacing technology.

In the industrial cable area, researchers are working on lower emission non-halogenated flame-retardant PE technology, using aluminum trihydrate, which, they hope, will take over PVC and PTFE uses in cables.

Their UV-degradable polyethylene product is already being used in multiple-pack soft drink holders, the firm reports, and faces a tremendous potential in the growing disposable packaging market.

The specialties unit is also said to be experimenting with hexene as an alternative to butene comonomer. Carbide says its lines of VLDPE, first marketed in 1984, show a high degree of inherent flexiblity with high environmental stress crack (ESC) resistance, and are expected to capture a share of markets now dominated by polyurethane, thermoplastic elastomers, and vinyl acetate copolymer blends, including pond lining, flexible hose and tubing.

Sulfur Leasing Moves Forward

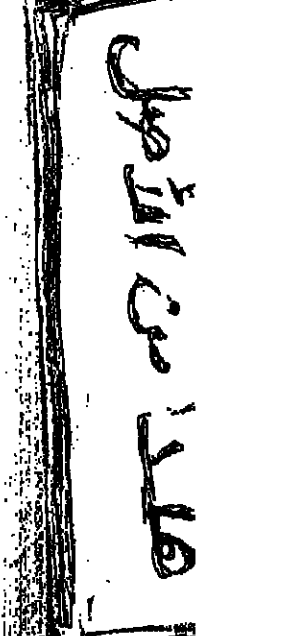
Interior Department's minerals management service is requesting nominations on specific areas to be considered for a sulfur lease sale in the Central and Western Gulf of Mexico. This initial step in presale planning comes after responses were received on a request for comments issued in June.

The last Federal lease sale for sulfur was held in 1969, but during the late 1960's world oversupply of sulfur developed, depressing the fertilizer market and U.S. sulfur production. This situation continued until 1976 when consumption in the United States exceeded supply. The US Bureau of Mines now predicts a 3.2 percent annual increase in sulfur demand until the year 2000.

"Since 1976, the United States has been a net sulfur importer. The discovery and development of additional offshore reserves can help meet U.S. requirements for a cost-competitive domestic source," says MMS director William D. Bettenberg.

The general area of the call covers the central and western portions of the Gulf of Mexico. The department is focusing its attention on blocks lying in waters less than 400 feet deep. Deferred are two sensitive blocks in the Flower Garden Banks.

ADVERTISERS' INDEX



CHEMICAL PROFILE

HYDROGEN PEROXIDE

OCTOBER 27, 1986

SUPPLY

PRODUCER	CAPACITY*
Du Pont, Memphis, Tenn.	125
FMC, Bayport, Tex.	95
FMC, South Charleston, W. Va.	85
Interox, Deer Park, Tex.	110
Total	415

*Millions of pounds per year, 100 percent basis. Du Pont Canada is building an 80-million-pound per yera plant in Maitland, Ontario, due on stream January 1987. FMC expanded capacity at its Bayport facility by 25 million pounds in the third quarter, 1985, and again by 10 million pounds early this year. FMC has postponed construction of a 22-million-pound-per-year facility in Squamish, B.C. Interox completed a 22-million-pound expansion in July 1985. Degussa Corporation is constructing an 80-million-pound-per-year plant in Mobile, Ala., due on stream in early 1987. Oxychem Canada, a venture involving C-I-L and Atochem and L'Air Liquid of France is building a 44-million-pound-per-year plant in Becancour, Quebec, scheduled for completion in September 1987.

DEMAND

1985: 300 million pounds; 1986: 320 million pounds; 1990: 410 million pounds. (Canada and US)

GROWTH

Historical (1976-1985): 4.4 percent per year; future: 6 to 8 percent per year through 1990.

PRICE

Historical (1952-1986): High, 45c. per pound, 70 percent, tankcars, f.o.b. frt. equald; low, 23c. per pound, same basis. Current: 45c. per pound, same basis.

USES

Chemical synthesis, 24 percent; pulp and paper, 23 percent; environmental uses (includes municipal and industrial water treatment and geothermal steam treatment), 18 percent; textiles, 14 percent; mining, 3 percent; electronics, 3 percent; miscellaneous (including food and cosmetic uses and the distributor market), 15 percent.

STRENGTH

Hydrogen peroxide use is growing rapidly in Canada as new thermomechanical wood pulping mills come on stream. Environmental applications based on peroxide's non-polluting oxidation ability are spreading through new applications and increased EPA pressure on industry. Although small volume-wise, special markets such as asceptic packaging are growing quickly.

WEAKNESS

New peroxide plants in the US and Canada will create significant overcapacity until demand can catch up to supply. The uranium mining market is flat and geothermal use is declining in the face of an alternative technology.

OUTLOOK

Existing markets will keep peroxide growing well, and potential applications could produce growth well above current projections. Most promising is home laundry detergent use of peroxide derivatives as bleaching agents. Products are currently being test marketed by major detergent companies. Also possible are treatment of waste cellulose for animal feed use, an application now in the R&D stage, and bioreclamation of organically contaminated soil.

BOOKSHELF

Chemical Dictionary

The expanded and revised fourth edition of this chemical dictionary* includes approximately 100,000 entries from chemistry, biology, physics, mineralogy and metallurgy as well as descriptions of the most important manufacturing processes and machinery, raw materials and finished products and terms used in every phase of engineering and technical development.

For chemical compounds, the book provides chemical name, synonymous names, structural formula, molecular weight, physical properties, specific gravity, melting and boilings points, solubilities and uses.

A special feature is the compilation of tradename or proprietary products in the fields of synthetic resins and plastics, foods, drugs, cosmetics, metals, rubber, paints and varnishes, detergents, petroleum, electronics and radioactivity.

The nomenclature is that generally adopted by the chemist and engineer and cross references are included and arranged so that desired terms can be located with a minimum of effort.

*CONCISE CHEMICAL AND TECHNICAL DICTIONARY. Edited by H. Bennett. Cloth 7 X [illegible] inches. 1,269 pages. Chemical Publishing Company, 912 Cherry Lane, Vestal, N.Y. 13860. $[illegible]

Quality Assurance

Both purchasers and suppliers of manufactured products of all kinds need assurance that products will perform their intended function safely and with an acceptable degree of reliability. Providing this assurance requires certain specific management actions and the formal discipline of quality assurance provides the framework for these actions. The formal approach has become increasingly necessary for a number of reasons: contractural requirements, the need to provide evidence of meeting statutory and regulatory requirements and above all, the safety-related and economic consequences of product failure.

Criteria for management actions in respect to quality assurance are defined in a number of national standards, but these are very general criteria and need to be "interpreted" in the context of particular types of manufactured product.

This book* discusses and analyses the unique characteristics of this industry as they relate to the quality assurance approach and then makes a critical analysis of the detailed quality assurance criteria and how they should therefore be applied. The aim of the book is to give guidance to engineers/managers associated with the process plant principles and practices in the context of their industry. The book should be helpful in conjunction with relevant quality assurance standards and specifications.

*QUALITY ASSURANCE IN PROCESS PLANT MANUFACTURE. By J.H. Rogerson. Cloth [illegible] inches. 159 pages. Elsevier Science Publishing Company, 52 Vanderbilt Avenue, New York 10017. $41.25.

Non-Prescription Drugs

The American Pharamceutical Association has published this newly revised and updated eighth edition of its handbook* on non-prescription drugs. Pharmacists, physicians and other health-care professionals have been using this text for over two decades and it has become the standard classroom text in pharmacy courses dealing with the field. Four years of research, editing and review have been devoted to this new edition. All chapters have been revised and a completely new one (on antipyretics) has been added. New illustrations, anatomical drawings and full-color photographs are also included. The handbook contains the latest information on the Food & Drug Administration's review of over-the-counter drugs as well as patient assessment and consultation.

The index has been expanded and all non-proprietary ("generic") and trade name drugs, in addition to disease states and symptoms, have been cross-referenced. Product tables listing non-prescription drugs and their ingredients have been updated.

*HANDBOOK OF NONPRESCRIPTION DRUGS. Cloth. 8½ X 11½ inches. 741 pages. American Pharmaceutical Asociation, 2215 Constitution Avenue, N.W., Washington, D.C. 20037. $70.00.

MEETINGS CALENDAR

October 27, 1986

THIS WEEK

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS, international conference and exposition, Westin Peachtree Plaza Hotel, Atlanta, Ga., October 28-31.

NOVEMBER

AMERICAN PETROLEUM INSTITUTE, annual meeting, San Francisco, Calif., November 9-11.

AMERICAN SOCIETY FOR TESTING AND MATERIALS, 7th Symposium on Pesticide Formulations and Application Systems Phoenix Hilton, Phoenix, Ariz., November 5-6

CHEMICAL MANUFACTURERS ASSOCIATION, chemical industry conference, Palmer House Hotel, November 17-18, Chicago, Ill.

CHEMICAL MARKETING RESEARCH ASSOCIATION, business school, personal computers in the workplace, Scanticon Executive Conference Center, Princeton, N.J., November 5-7.

COSMETIC, TOILETRY & FRAGRANCE ASSOCATION, scientific conference and exhibit, J.W. Marriott Hotel, Washington, D.C., November 2-5.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, Fall luncheon, Waldorf-Astoria Hotel, New York, November 19.

DRY COLOR MANUFACTURERS ASSOCIATION, technical seminar, requirements under the Toxic Substances Control Act, Hilton Gateway Hotel, Gateway Center, Newark, N.J., November 12.

EUROPEAN PETROCHEMICAL ASSOCIATION, Intermodal transport seminar, Frankfurt Sheraton Hotel, Frankfurt, West Germany, November 20-21.

FERTILIZER ROUND TABLE, Sheraton Inner Harbor Hotel, Baltimore, Md., November 17-19.

FRAGRANCE MATERIALS ASSOCIATION OF THE UNITED STATES, 10th international congress of essential oils, fragrances and flavors, Omni Shoreham Hotel, headquarters hotel, Washington, D.C., November 16-20.

K-'86, 10th international trade fair for plastics and rubber, Dusseldorf, West Germany, November 6-13.

LATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting, Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-26.

NATIONAL PAINT & COATINGS ASSOCIATION, 99th annual meeting, Atlanta Hilton Hotel, Atlanta, Ga., November 3-5.

SALES ASSOCIATION OF THE CHEMICAL INDUSTRY, annual luncheon meeting, Bethwood, Totowa, N.J., November 6.

LATER ON

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS, center for chemical process safety, international conference on chemical safety issues, Omni Shoreham Hotel, Washington, D.C., February 3-5.

CHEMICAL MARKETING RESEARCH ASSOCIATION, Houston Meeting: "The US Chemical Industry-Responding to Change." Westin Galleria Hotel, Houston, Tex., February 4-5, 1987.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd annual meeting, Marriott's Harbor Beach Resort, Fort Lauderdale, Fla., December 7-11.

CHLORINE INSTITUTE, Winter meeting, Mayflower Hotel, Washington, D.C., March 15-19.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, 61st annual dinner, Waldorf-Astoria Hotel, New York, March 19.

FERTILIZER INSTITUTE, 1987 annual meeting, [illegible] Orlando World Center, Orlando, Fla., February [illegible]

INSTITUTE OF GAS TECHNOLOGY, 11th annual symposium on energy from biomass and wastes, [illegible] Royal Plaza, Walt Disney World Village, Buena [illegible] Fla., February 2-6.

NATIONAL ASSOCIATION OF CHEMICAL DISTRIBUTORS, 15th annual meeting, Ritz-Carlton-Naples Hotel, Naples, Fla., December 2-6.

SALES ASSOCIATION OF THE CHEMICAL INDUSTRY, annual Christmas party, New York Hilton Hotel, New York, December 18; education committee, [illegible] "The Psychology of Selling." Treadway Inn, [illegible] Brook, N.J., December 18.

SOAP AND DETERGENT ASSOCIATION, 60th Annual Meeting and Industry Convention, Boca Raton Hotel and Club, Boca Raton, Fla., January 29-February [illegible] 1987.

SOCIETY OF THE PLASTICS INDUSTRY, 42nd annual conference of the reinforced plastics and composites institute, Cincinnati Convention & Exhibition Center, Cincinnati, Ohio, February 2-6.

JOBS & PEOPLE

Richard Meer, who has been appointed president of Meer Corporation. Mr. Meer has been with Meer Corporation for 18 years and had previously held various positions with E.I. du Pont de Nemours & Co.

LOUIS L. LOSSBROCK has been named sales manager of the mining and mineral processing group of Nalco Chemical Company... JAMES A. NAWROCKI has been appointed portfolio manager in the corporate portfolio investments department of Dow Chemical Company... JOHN BURROWS has been named manager of FMC Corporation's Marine Colloids Division.

LLOYD A. HUDSON has been appointed product manager of ultra-high molecular weight polymers and polypropylene resins at Himont USA., Inc... JOHN PREST has been named national sales manager at the Agricultural Division of Hoechst-Roussel Agri-Vet Company... KENNETH A. KRICK has been elected president and chief executive officer of General American Transportation Corporation, effective 1987.

GARY MIERTSCHIN has been appointed director of marketing services at Soltex Polymer Corporation... BRUCE R. OLSON has been named business manager of emulsions within the chemicals group of Air Products & Chemicals, Inc... DAVID T. DAVIS has been elected vice-president and treasurer of A.H. Robbins Company.

JANET E. MANN has been named general manager of the chelate chemicals management unit in organic chemicals at Akzo Chemie America... GREGORY T. COOPER has been appointed general manager of the distribution group at Chemtech Industries, Inc... JOHN J. EHLIG has been named sales representative for the chemical catalysts and processes department in Englehard Corporation's Specialty Chemicals Division.

WALTER KOSACHUK has been appointed national sales manager for railroads for E.I. du Pont de Nemours & Co.'s maintenance finishes group... EDWARD A. SCHMITT has been named manufacturing manager for Georgia Gulf Corporation's commodity chemicals... KEVIN M. CURRY has been appointed area manager for Illinois at A.L. Laboratories, Inc.

DAN GILBERT has been named technical director at Surface Protection Industries, Inc. in Los Angeles, Calif... CAREY GLOUSER has been appointed sales representative for Central and Northern Indiana at A.L. Laboratories, Inc... DONALD E. SAUNDERS has been elected executive vice-president and chief financial officer of DuBois Company.

KALMAN E. BUCHOVECKY has been appointed market development manager and THOMAS L. FRANCIS technology manager in the Alcoa Advanced Ceramics Division at Aluminum Company of America... DAVID K. HAMEL has been named sales representative for the Adhesives Division of National Starch & Chemical Corporation.

MYRON A. FRANK has joined Stepan Company as director of marketing in industrial chemicals, BURT M. LIKE has joined as product manager, and FREDERICK G. REHBEIN has also joined as product manager.

L. Loosbrock

J. Nawrocki

Scherer Elects Regional Presidents

R.P. Scherer Corporation has elected Kenneth R. Monroe, Jr. president of its major domestic subsidiary, R.P. Scherer North America, and Barrie P. Webb Pacific regional president.

Mr. Monroe joined R.P. Scherer after 20 years of experience in both the domestic and pharmaceuticals industries as assistant to the president last June. R.P. Scherer North America is headquartered in Clearwater, Fla.

Mr. Webb, who had been president of R.P. Scherer North America, will be overseeing the company's softgel operations in a geographic area including Australia, Japan and South Korea.

K. Moore

B. Webb

J. Burrows

L. Hudson

Matthew A. Taylor, who has been named president of CYRO Industries. He leaves the Chemical Products Division of American Cyanamid Company where he was president to assume the position with CYRO, a partnership of Cyanamid and Rohm GmbH of West Germany.

J. Prest

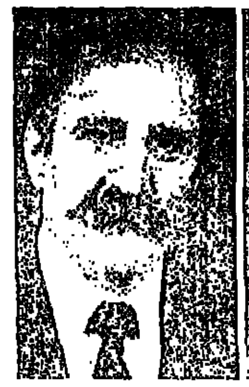
K. Krick

Salsbury Chemicals Appoints Managers

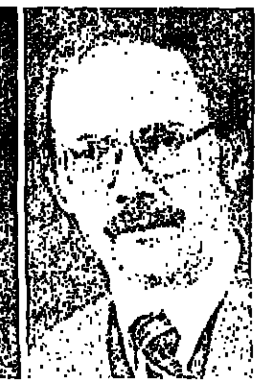
Salsbury Chemicals, a unit of Salsbury Laboratories, has appointed Sheldon Gelman Northeast marketing manager and Warren Dunkel Midwest marketing manager.

The appointments continue the company's expansion of its chemical manufacturing services. It expects to service the Southeast by year-end when an office in Atlanta is opened.

Mr. Gelman joins Salsbury from Stauffer Chemical where he held various positions for 20 years. Mr. Dunkel joined Salsbury in 1970 in its research and development department.



S. Gelman



W. Dunkel

G. Miertschin

B. Olson

BUSINESS BRIEFS

AVECOR INC., San Fernando, Calif., has appointed Christopher & Laughlin Inc., Bellevue, Wash., as sales representative for the states of Washington and Oregon. Avecor supplies color concentrates, liquid dispersions and blended dry colors to the plastics industry.

BRISTOL-MYERS US Pharmaceutical Group, based in Evansville, Ind., has formed a new division, Bristol-Myers Pharmaceutical Division, to market the company's line of generic pharmaceutical products. The new unit will sell the products under the "Apothecon" label formerly used by Bristol Laboratories to sell generic antibiotics to large chain drug stores.

COMBUSTION ENGINEERING LTD.'S Simcon UK division has been contracted to supply an operator training simulator for Indian Petrochemicals Corporation Ltd., Baroda, India. The simulator will be used to train plant operators in analog instrumentation and distributed digital control. Indian Petrochemicals has also licensed Simcon's proprietary simulation software.

ENZON INC., South Plainfield, N.J., says it has been awarded a research grant from the National Institutes of Health to develop PEG-uricase for the treatment of hyperuricemia and gout. Clinical studies at Veteran's Administration Hospital in East Orange, N.J., indicate that PEG-uricase is highly effective in breaking down uric acid, according to Enzon.

REICHHOLD CHEMICALS Inc.'s Reactive Polymers Division has introduced what the company describes as the first non-blushing, non-staining polyester resin for use in auto body patch compounds. According to Reichhold, the resin has been shown to be unaffected by UV attack with urethanes and most other commonly used top coats. UV attack is the most common cause of body patch blushing.

WITCO CORPORATION's Humko Chemical Division has introduced a fatty bisamide designed as a lubricant for powdered metal compounds. The "Kemamide" product is a micronized synthetic wax which burns clean during processing, leaving no residue, according to Witco. The product is a useful molding aid because it allows dense compacting of the powdered metal, Witco says, and also offers a highly uniform particle size and a high melting point.

ELDIB ENGINEERING & Research Inc., Berkeley Heights, N.J., has published a guide to US injection molders of automobile parts, containing names of injection molders who are potential partners in joint ventures with primary manufacturers and secondary subcontractors seeking to set up plants quickly in the US for domestic and foreign consumption of auto parts.